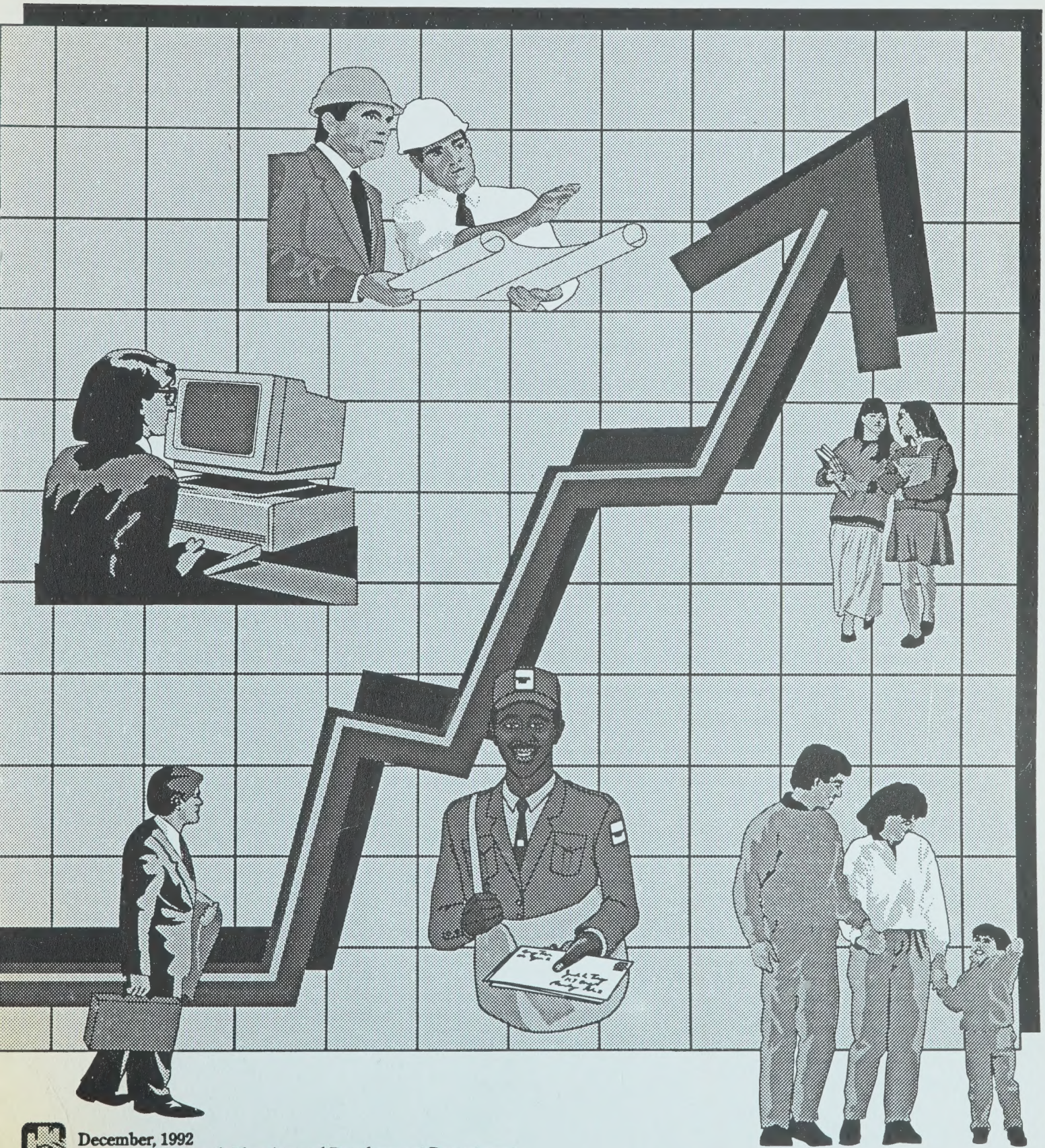
milton-Wentworth
OUSEHOLD AND LABOUR FORCE
PROJECTIONS
1991-2021



December, 1992
Hamilton-Wentworth Planning and Development Department

HAMILTON-WENTWORTH
POPULATION, HOUSEHOLD AND LABOUR FORCE PROJECTIONS
1991-2021

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Planning and Development Department
Regional Municipality of Hamilton-Wentworth
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Table of Contents

EXECUTIVE SUMMARY

PURPOSE

This report projects population, household formation and labour force change for the Regional Municipality of Hamilton-Wentworth from 1991 to 2021. The report is intended to provide a sound basis for planning health, transit, educational and other services. It includes an examination of fertility, mortality and migration in order to account for demographic trends. Some implications of the changes in the size and age composition of the population are noted. The report was prepared as a background study for the Official Plan review, particularly to support a review of the Regional settlement pattern.

SUMMARY OF ASSUMPTIONS

Fertility

Fertility rates will increase marginally to 1.76 births per woman, until 1996 and then drop back to 1.68 births per woman for the long term.

Mortality

Male life expectancy at birth will rise from 74.1 years in 1990 to 78.3 in 2015, while life expectancy for females will rise from 79.5 years to 84.5 over the same period.

Migration

Net annual international migration will remain high at 3,150 people until 1995, decline to about 1,650 until 2000, and begin a slow increase to 2,070 by 2015 and then remain at this level.

Net annual interprovincial migration will remain constant at an annual average of 100 migrants through the entire projection period.

Net annual intraprovincial migration will increase from minus 800 people to 0 by 2000 and then remain at this level for the remainder of the projection period.

Households

Headship rates will remain at 1986 levels over the projection period.

Labour Force

Participation rates for age and sex specific categories continue to change between 1991 and 2001:

- rates for 25-64 females will increase to equal male participation rates except for women in their child-bearing years;
- rates for the 15-24 age group rates will increase slightly; and
- rates for the 55-64 age group will decline due to early retirement.

Between 2001 and 2021 participation rates remain constant at 2001 levels.

PROJECTIONS

Population

- The population of Hamilton-Wentworth is projected to grow from 451,665 in 1991 to 566,465 in 2021. There will be 114,800 more people in the region in thirty years, 25% more than in 1991.

- The rate of increase will be higher through the 1990's and level off after 2001.

- Four significant trends in age composition are:
  1) the relatively constant number of 0-14 year olds;
  2) the decline in the number of young adults;
  3) the large number of people (the baby boom) moving into middle age and then into retirement age after 2011; and,
  4) the increase in the number of older elderly in the early 1990's.

Households

- The number of households is projected to increase by 63,110 from 169,120 in 1991 to 232,230 in 2021. The highest average annual growth (2,380) will occur in the years 1991-1996.

- Average household size will decrease from 2.66 to 2.44 persons per households in 2021.

Labour Force

- The projected resident labour force will increase from an estimated 240,125 people in 1991 to 312,240 in 2021. Growth in the labour force will be greatest between 1991 and 2001 as the proportion of women in the workforce is expected to increase from 46% to 50%

- Average annual growth in the resident labour force will slow considerably and show little increase after 2011 as the work force ages and retires.

Hamilton-Wentworth
Projected Population, Households, Labour Force
1991-2021

	1991	1996	2001	2006	2011	2016	2021
Population	451,665	477,565	498,050	515,445	532,850	550,040	566,465
Households	169,120	181,010	191,525	201,225	211,885	222,340	232,235
Labour Force	240,125	260,800	283,345	295,040	305,640	310,790	312,240

Source : Regional Municipality of Hamilton-Wentworth Planning Department 1992.

Area Municipal Distribution

- Each municipality will experience growth but the projected population increase is not expected to be uniform across the Region. Ancaster, Flamborough, Stoney Creek and Glanbrook are expected to experience much higher proportional growth than Dundas and Hamilton.

	1991		2021	
	Population	Households	Population	Households
Ancaster	21,990	6,880	42,995	15,190
Dundas	21,870	7,770	25,515	10,170
Flamborough	29,615	9,625	52,925	19,465
Glanbrook	9,725	3,080	15,975	6,320
Hamilton	318,500	125,525	342,100	149,025
Stoney Creek	49,970	16,245	86,995	32,055

Conclusions

The patterns of change in the size, geographic distribution and age composition of the population play a central role in the development of public policy. Many of the factors which determine rates of population change are beyond the control of local institutions, but the ways in which the communities in the Region absorb or adjust to these changes is within the influence of community decision-makers.

"Vision 2020-The Sustainable Region" describes in broad terms the type of community Hamilton-Wentworth could be in the year 2020 if our actions follow the principles of sustainable development. Vision 2020 sets out a challenge to government, citizens and business, and community groups to think about how their actions can move the community towards a more sustainable future--fulfilling human needs, maintaining the environment and sharing limited resources. Given the goal of sustainable development and projected population change, growth management issues will remain at the forefront of public concern.

This report provides some measure of the scope of the challenges which lie ahead. On the basis of existing trends there will be a projected increase of 114,800 people in the Region within the next thirty years, 25% more than in 1991. Will this mean 25% more waste, 25% higher consumption rates for water and energy, or 25% more land for housing on the urban fringe? Will parks, schools and hospitals be overcrowded or underutilized? The way our society answers these questions will be central to the achievement of a more sustainable community. Regional settlement pattern policies which take the first steps toward achieving a desirable, compact urban form, help set the context in which these questions will be answered.

1. INTRODUCTION

Population projections for Hamilton-Wentworth, were prepared by the Planning and Development Department in 1989 and are contained in the report "Population Projections, 1988-2006". By 1992 the Planning and Development Department was involved in the work of the Sustainable Development Task Force and the major five year review of the Official Plan. Growth management issues were identified as high priority concerns.

With the availability of 1991 Census data the opportunity presented itself to revisit the assumptions built into the 1989 projections and provide an updated and objective analysis of what we might expect in terms of population change in the Region. A thirty year time frame was chosen because of the Sustainable Devlopment Task Force's focus on the achievement of a sustainable community by the year 2020. Given the uncertainty inherent in long-term projections the Planning and Development Department will review the assumptions and prepare up-dated projections every five years, i.e. the year in which Census results become available.

Incorporated in this report are projections for population, household formation and labour force change for the Regional Municipality of Hamilton-Wentworth from 1991 to 2021. Fertility, mortality and migration are reviewed in order to explain demographic trends and justify assumptions. Some implications of the changes in the size and age composition of the population are noted.

The report was prepared as a background study for the Official Plan review, particularly to support a review of the Regional settlement pattern. In addition, the report is intended to provide sufficient detail and accuracy for other agencies and groups planning health, transit, educational and other services.

1.1 Methodology

The cohort survival method was used to project future population growth. The current population (1991 Census) was divided into single year age/sex groups which were then aged according to projected fertility (birth) and mortality (death) rates. For each year, births were added and deaths subtracted from the age/sex groups in which they are predicted to occur. Assumptions were made about the number of people who will move into or out of Hamilton-Wentworth. Accordingly, migrants are added or subtracted from the appropriate cohort.

The number of households was projected using age specific household headship rates. Headship rates were multiplied by the projected population to estimate the number of households.

The resident labour force was estimated by applying age and sex specific labour force participation rates to the age and sex breakdown of the forecast population. The resident labour force was converted into an estimate of the labour force working in Hamilton-Wentworth by applying an assumed unemployment rate and an assumed net rate of commuting.

The assumptions regarding future trends in fertility, mortality, migration, household formation and labour force participation rates were developed in conjunction with a Technical Advisory Committee. The committee, made up of representatives from area municipal planning departments and regional departments examined and discussed the factors which will influence future population trends.

The report also includes a summary of household growth by area municipality. This allocation is based on the distribution of projected Regional households consistent with: existing commitments to infrastructure development; the unit potential of vacant residential land in each Area Municipality; and a compact urban form fulfilling a range of criteria.

2. POPULATION TRENDS

2.1 Population Growth: Historical Trends

Before the 1920s, population growth rates in Hamilton-Wentworth exceeded the provincial rate, reflecting the urbanization of Ontario and the early economic growth of Hamilton-Wentworth. Since the 1930s Hamilton-Wentworth has experienced population growth trends comparable to provincial trends. The rate of growth declined to almost zero in the late 1970s when there was a large migration of people to Alberta during the oil boom. In the 1980s the rate of population growth increased because of economic growth in Ontario, increased international migration and an increase in the number of births.

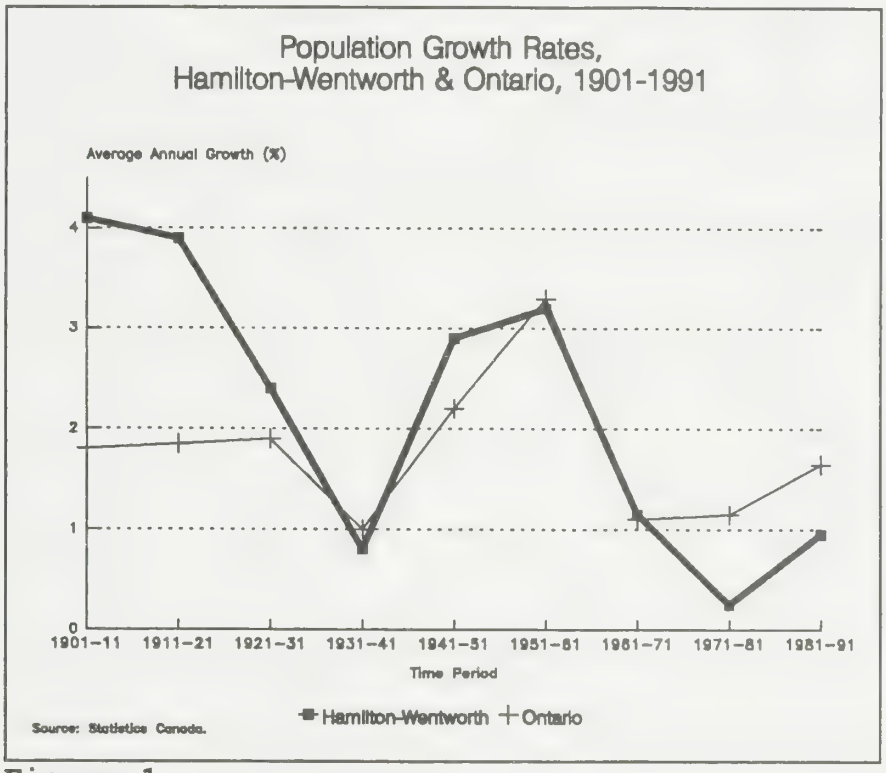


Figure 1

Between 1981 and 1986 the average annual population growth in Hamilton-Wentworth was 0.6%. Between 1986 and 1991 the average annual population growth rate increased to 1.3%. In comparison to the rest of Ontario, recent population growth has been lower in Hamilton-Wentworth. Hamilton-Wentworth's share of Ontario's population is now 4.5%.

Table 1

Population Growth in Hamilton-Wentworth, The Six Central Regions, and Ontario, 1951-1991

		Population	Average Annual Growth	Share of Province(%)
1951	Hamilton-Wentworth	266,083		5.8
	Six Central Regions	1,659,712		36.1
	Ontario	4,597,542		
1956	Hamilton-Wentworth	316,238	3.4	5.9
	Six Central Region	2,052,511	4.2	38.0
	Ontario	5,404,933	3.2	
1961	Hamilton-Wentworth	358,837	2.5	5.8
	Six Central Regions	2,486,298	3.8	39.9
	Ontario	6,236,092	2.2	
1966	Hamilton-Wentworth	383,175	1.3	5.5
	Six Central Regions	2,940,806	3.3	42.2
	Ontario	6,960,870	2.2	
1971	Hamilton-Wentworth	401,883	1.0	5.2
	Six Central Regions	3,347,582	2.6	43.5
	Ontario	7,703,106	2.0	
1976	Hamilton-Wentworth	409,490	0.4	5.0
	Six Central Regions	3,589,576	1.4	43.4
	Ontario	8,264,465	1.4	
1981	Hamilton-Wentworth	411,445	0.1	4.8
	Six Central Regions	3,829,156	1.3	44.4
	Ontario	8,625,107	0.9	
1986	Hamilton-Wentworth	423,398	0.6	4.7
	Six Central Regions	4,156,458	1.6	45.7
	Ontario	9,101,694	1.1	
1991	Hamilton-Wentworth	451,665	1.3	4.5
	Six Central Regions	4,687,421	2.6	46.5
	Ontario	10,084,885	2.2	

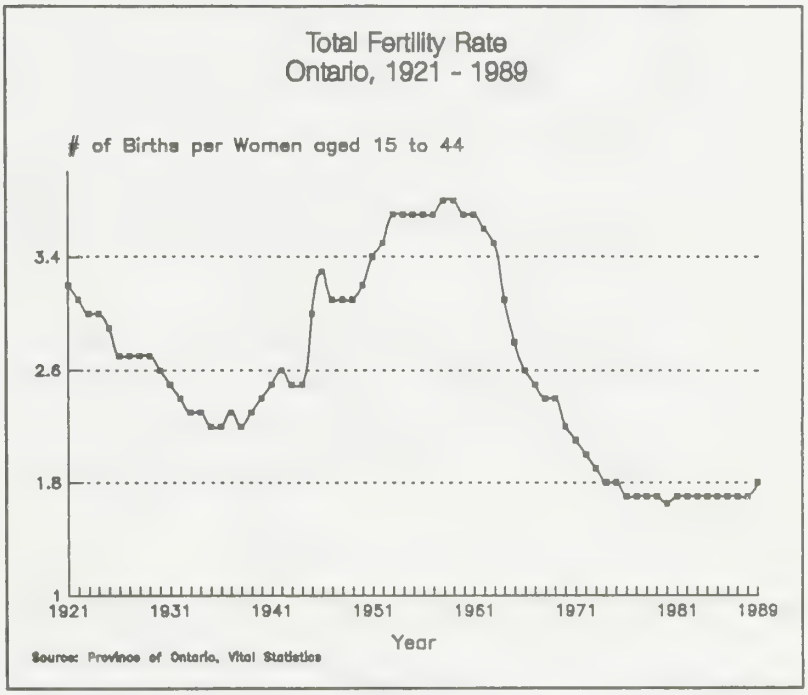
The six central regions are: Durham, Halton, Hamilton-Wentworth, Metro Toronto, Peel, and York.
Source: Statistics Canada, Census of Canada.

The "1988 Population Projections", projected a total regional population of between 437,000 and 446,000 in 1991 (not including approximately 2,200 students residing at McMaster). Actual population in 1991, including the McMaster students was 451,665. There were two main causes for a faster than predicted rate of population growth between 1988 and 1991:

- a higher rate of international migration; and
- a slight increase in fertility rates.

2.2 Fertility

Figure 2



The 20th century, in Ontario, has been marked with four major phases in fertility patterns. From 1921 to around 1937 there was a strong decline every year in the total fertility rate (average number of children a woman will have in her lifetime). This decline reflected a trend towards smaller families and was compounded by the effects of the Great Depression. Between 1937 and 1959 total fertility rates increased, particulary after World War Two. From the mid-1960s until the mid-1970s, there was a slow steady decline to below the replacement level of 2.1 births per woman. Since the mid-1970s total fertility rates have remained constant at the low level of 1.67 births per woman. More recently, there has been a slight increase in total fertility rates.

The age when women have children is also changing. The total birth rate for women aged 30 to 34 years of age, has been increasing since 1975, going from 64.5 to 91.6 births per 1,000 women in 1989. There has also been a slight increase, for women aged 35 to 44. At the same time, the youngest age groups (15 to 29) experienced a slow steady decline in fertility rates until rates stabilized in the mid-1980s.

Three main causes have been suggested for the long term decline in fertility:

- the increased availability of contraceptive technology and public education. The occurrence of "unplanned births" has been reduced and is reflected in the decrease in the number of adolescent women having children. In 1976, about 11% of Ontario's female teenagers gave birth as compared to about 6% in 1986;

- the increased proportion of women in the labour force. In 1966, only 38% of women aged 15 and over in Ontario, were in the labour force. In 1990, that proportion increased to 61%. In addition there has been a marked increase in education and skill levels. These changes have resulted in increased earning power and consequently increased the opportunity costs of staying at home and having children; and

- the dramatic changes occurring in family structure. The traditional long-term, husband-wife relationship is not as pervasive as it once was. There have been large increases in the number of people living alone, and an estimated 1 in 3 marriages end in divorce.

2.2.1 Future Fertility Possibilities

The "1988 Population Projections" prepared for the Region developed three fertility scenarios. The low fertility scenario assumed a decline from 1.7 to 1.4 by the year 2006. The constant fertility scenario, and the one used in the most likely population scenario, assumed fertility rates would remain at 1.7. The high fertility scenario assumed economic opportunities would result in fertility rates increasing to 2.0 by the year 2006. These assumptions were consistent with those used in provincial projections, prepared in 1989, by the Ministry of Treasury and Economics.

Revised provincial projections prepared in 1991, by the Ministry, assume only one fertility possibility. In these projections the Ministry maintains the current rate of 1.76 births until 1996 and then drops the rate back to 1.68 births per woman for the long term. The recent increase in total fertility rates is likely a short term phenomena due to the influence of the large number of women in the baby boom generation who postponed childbirth into their 30's. The revised 1992 population projections in this document use the provincial assumptions on future fertility rates. Only one scenario was adopted.

Table 2

1988 POPULATION PROJECTIONS
Fertility Scenarios

	1988	1991	1996	2001	2006
Low Fertility Scenario	1.70	1.60	1.50	1.50	1.40
Constant Fertility Scenario	1.70	1.70	1.70	1.70	1.70
High Fertility Scenario	1.70	1.80	1.90	1.90	2.00

REVISED PROJECTIONS

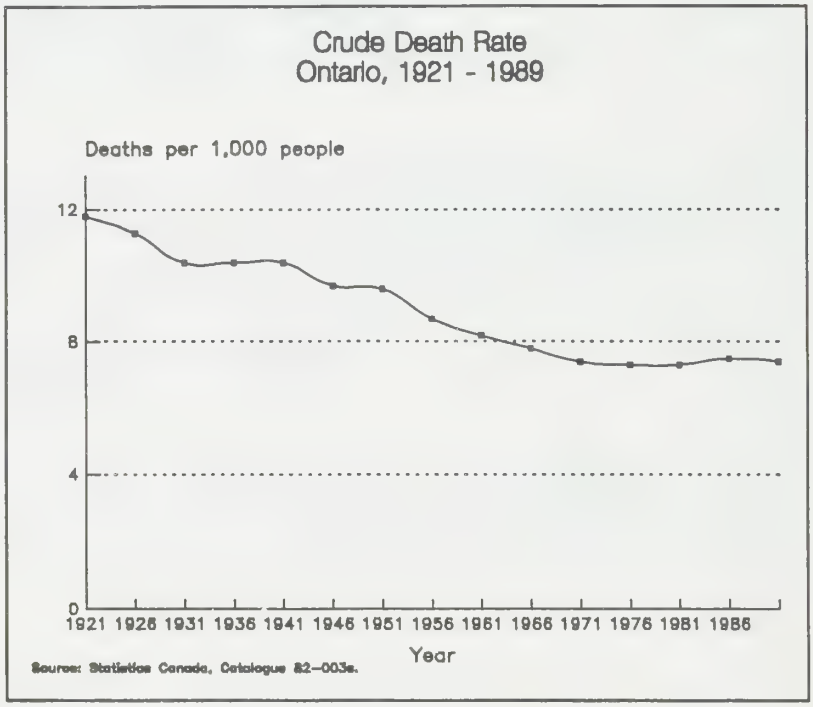
	1991	1996	2001	2006	2021
Reference scenario	1.76	1.76	1.68	1.68	1.68

2.3 Mortality

Life expectancy is important because it influences both the age structure of a population and the number of deaths likely to occur. Mortality rates have dropped dramatically in the 20th century and the overall death rate is presently quite low (approximately 7.2 deaths per 1,000 population per year). With the exception of infants, the age and sex specific mortality rates for people under age 50 are all below 5 deaths per thousand. The most significant consequence of reduced mortality rates is an increase in the number of people who survive into old age.

The dramatic decline in mortality rates is the result of a medical and public health revolution which started in the late 19th century. Garbage removal, sewer systems, and water purification combined with advances in the science of immunization and in preventative and curative medicine greatly improved public health. Problems of childbearing and delivery, childhood diseases and mortality relating to diet and sanitation were greatly reduced.

Figure 3



Only recently have there been improvements in life expectancy after childhood. Medical advances are being made in the control of heart disease and strokes. Life style changes such as reductions in smoking, and increased access to medical screening and care are improving life expectancy. Death rates for elderly women, and more recently elderly men, have dropped. The improved life expectancy of older people means many more will live well into their eighties and beyond.

2.3.1 Future Mortality Rate Possibilities

The point is being reached where the majority of people in Canada either die early in life from specific childbirth problems, or late in life from diseases related to the aging process. Psycho-social factors such as stress and isolation are now recognized to play a significant role in the onset of disease and the healing process but it is hard to say whether changes in medical practice will affect how long people live. It is unlikely that there will be any further dramatic decreases in the mortality rate. The human life span will probably only be increased through an improved understanding of the aging process.

On the other hand, mortality rates may change because of the risks of exposure to hazardous chemical compounds or radiation. Cancer rates continue to increase even while lifestyle changes such as decreased smoking are occurring. Although the link is not fully proven, it is possible that exposure to substances, such as industrial chemicals and wastes, engine exhaust, ground level ozone, and radon are the possible cause of increased cancer. The future may witness a spread of cancer or new diseases which will prevent any further increase in life expectancy. The recent discovery of new viruses, or drug-resistant strains of old diseases such as tuberculosis, may also prove to be significant factors.

For these projections, the long-term mortality assumption is similar to the one used in the "1988 Population Projections" and is the one adopted by the Ministry of Treasury and Economics in its 1991 provincial projections. It is assumed that male life expectancy at birth will rise from 74.1 years in 1990 to 78.3 years in 2015, while life expectancy for females increases from 79.5 years to 84.5 years.

2.4 Migration

As fertility and mortality rates become stable and largely predictable, the movement of people has become the most unpredictable component of population change. People usually change residence in response to either economic opportunities or a desire for improvement in lifestyle. People will move to get closer to their existing jobs, to be close to a new job or to improve their quality of life.

Net migration is the difference between the number of people moving into an area and the number of people leaving an area. There are 3 types of migration influencing regional population trends - international migration, interprovincial migration and intraprovincial migration.

2.4.1 International Migration

Levels of international migration are very dependent upon federal immigration policy. In the last five years the federal government has adopted a policy of significantly increasing the number of international migrants allowed into Canada. For the 1990-91 period net international migration in Canada was estimated at 179,371 people. This is an increase of over 300% from 1985-86, which saw the net migration of 43,235 people.

Since World War Two, Ontario has experienced more rapid growth than Canada, partly because the share of immigrants settling in the province has been large relative to the existing geographic distribution of Canada's population. Traditionally, Ontario has received 40 to 60% of Canada's net international migration.

Table 3

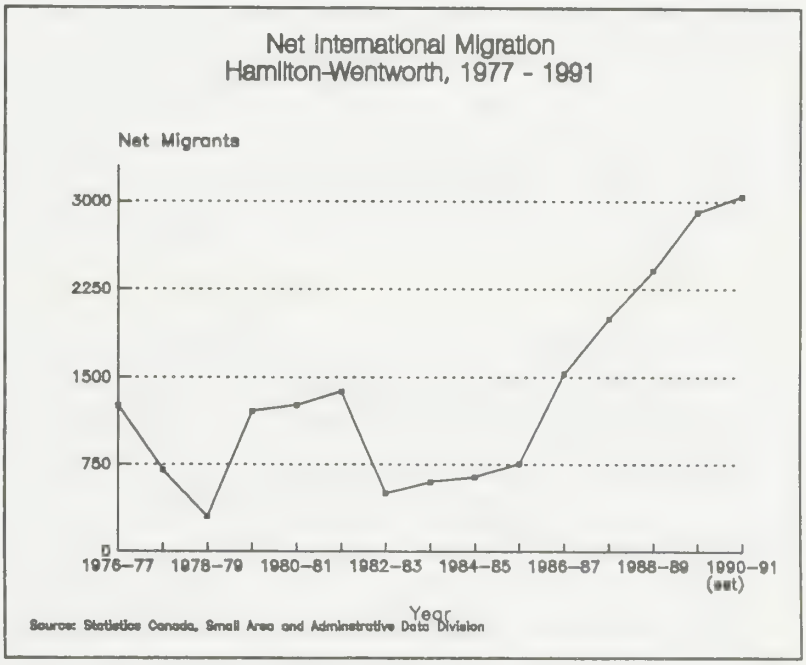
International Flow of Migrants
Canada, 1979-80 to 1990-91

Year	Immigration	Emigration	Net Migration
1976-77	132,565	57,122	75,443
1977-78	105,369	63,291	42,078
1978-79	82,939	63,559	19,380
1979-80	138,079	51,060	87,019
1980-81	129,466	43,609	85,857
1981-82	134,920	45,338	89,582
1982-83	105,286	50,249	55,037
1983-84	87,506	48,826	38,680
1984-85	84,062	46,252	37,810
1985-86	88,051	44,816	43,235
1986-87	125,696	51,040	74,656
1987-88	152,285	40,528	111,757
1988-89	174,495	37,437	137,058
1989-90	199,148	37,915	161,233
1990-91 (p)	217,795	38,424	179,371

Source: Statistics Canada, Catalogue 91-210, 91-002.
(p) = preliminary data.

International migration is an important component of population growth in Hamilton-Wentworth. In 1986, 25% of Hamilton-Wentworth's population was born outside Canada while the proportion nationally was only 16%. Hamilton-Wentworth has seen the number of net international migrants increase from 755 people in 1985-86 to over 2,900 people in 1989-90. The large increase in international migration is one of the major reasons for recent population growth.

Figure 4



Since 1976-77, Hamilton-Wentworth has received an average of about 3% of the net international migrants moving into Ontario. The Region attracts a smaller proportion of new Canadians settling in Ontario than its proportion of the Ontario population (4.5%) might suggest. This situation is similar to many other communities in Ontario because the Toronto area attracts a disproportionate share of international migrants.

2.4.1.1 Future International Migration Possibilities

International migration is an important component in the Region's population growth but is difficult to project. Levels of immigration are tied directly to Federal policy which has fluctuated widely since the end of World War Two. In the short term, the Federal Government has declared that the immigration targets for 1992 to 1995 will remain at 250,000 people. Canada can probably expect annual net international migration of between 200,000 to 220,000 people over that time. A new government or shift in public opinion could quickly lead to different policies with a significant affect on population change in the region.

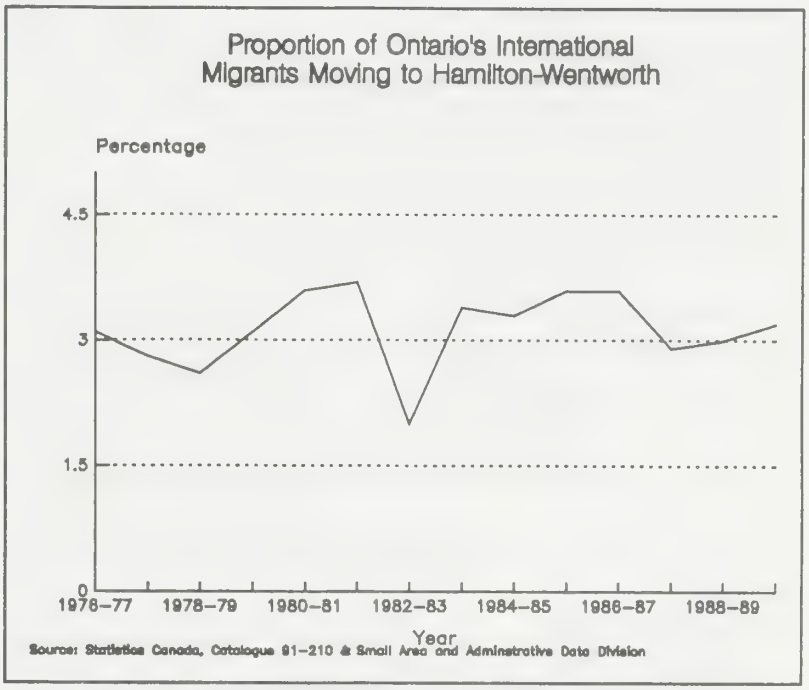
In the "1988 Population Projections", short term (1989 to 1996) annual international net migration to Ontario was expected to remain at 48,000. However, for the three years 1989 to 1991, net international migration to Ontario averaged 87,000. With federal targets set at 250,000 people for each of the next four years, it is likely that in the short term Ontario will receive approximately an annual average of 105,000 net international migrants. In the short term it is projected that Hamilton-Wentworth will continue to receive 3% of Ontario's net international migrants. This means that the Region will have an annual net international migration of 3,150 persons. The revised projection is higher than the short term projection of 1,920 people used in the "1988 Population Projections".

For the long term there is no stated policy on federal immigration beyond 1995. In the "1988 Population Projections" the long term (1967 to 1987) average annual net immigration to Ontario (38,000 people) was used to project the most likely net immigration. Provincial projections, prepared in 1991 assume that net international migration to Ontario will fall to about 55,000 people in the year 2000. After that levels will increase to about 69,000 people in the year 2015. Assuming Hamilton-Wentworth continues to receive 3% of Ontario's net international migrants, the region will see the annual average migrants drop from 3,150 to 1,650 people in the year 2000 and increase slowly to about 2,070 people in the year 2015 for an annual average of 1,950.

In the "1988 Population Projections" three long term migration scenarios were developed for international migration. All the scenarios were based on the assumption of annual net immigration to Ontario of 38,000 people but the proportion of migrants coming to Hamilton-Wentworth was changed for each one. The three scenarios projected a range of 3.0% to 4.7% resulting in an annual average of 990 to 1,975 persons.

Figure 5

In the revised population projections it is assumed that Hamilton-Wentworth will see no change in its share of international migrants moving to Ontario. Between 1976-77 and 1989-90 Hamilton-Wentworth has seen little change in its share of international migration. There is no reason to suggest any future change in this proportion.

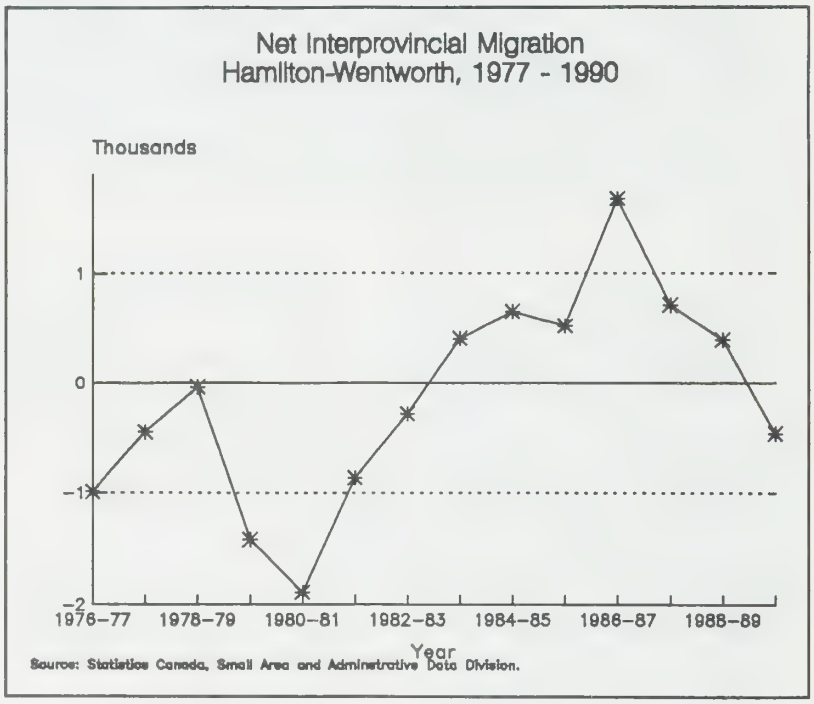


2.4.2 Interprovincial Migration

Interprovincial migration, the movement of people between provinces, fluctuates in response to economic and political events. During the 1970s the oil boom caused a large movement of people from Ontario to western Canada. Political uncertainties in Quebec during the late 1970s and early 1980s caused a number of people to move from Quebec into Ontario. Strong economic growth in the mid-1980s helped Ontario attract a large number of migrants from all provinces.

Hamilton-Wentworth has not experienced significant population growth from interprovincial migration. Between 1981 and 1986 the net interprovincial migration for Hamilton-Wentworth was only 435 people, representing an annual average of 87 people. Net interprovincial migration increased to 2,330 people or 582 people a year, between 1986 and 1990. However, the recent recession is resulting in Hamilton-Wentworth losing people to other provinces.

Figure 6



2.4.2.1 Future Interprovincial Migration Possibilities

The number of interprovincial migrants to Ontario has already declined from the historically high levels the late 1980s. The 1991 provincial projection assumes levels will fall to minus 8,000 people in 1991-92, then slowly increase to 10,000 people by 1995-96 and then fluctuate narrowly around the long-run historical average net inflow of 10,000 people. Ontario's net interprovincial migration is expected to maintain this positive annual average due to the strength of the Ontario economy relative to the economies of other provinces.

In the "1988 Population Projections" it was assumed that Ontario would receive an annual average of 10,000 interprovincial migrants. Three migration scenarios put the proportion of interprovincial migrants settling in Hamilton-Wentworth at 2% (high), 1% (most likely) or 0.5% (low) of the annual provincial average.

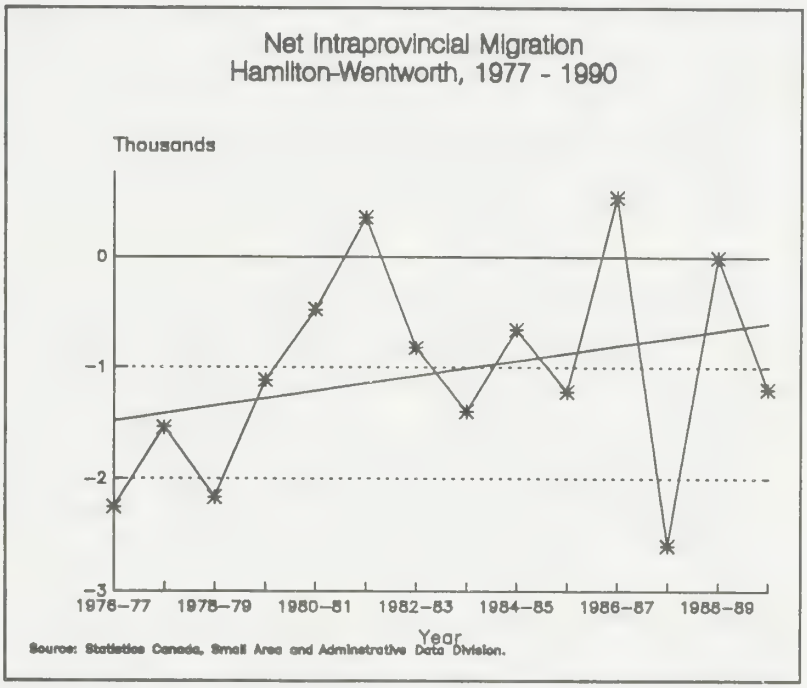
Based on the long term average these projections are based on the assumption that Hamilton-Wentworth will receive or lose 1% of Ontario's net interprovincial migrants. This means Hamilton-Wentworth's net interprovincial rate will fall to minus 80 in 1991-92 and then slowly increase to 100 by 1995-96. For the long term Hamilton-Wentworth will receive, an annual average of 100 net interprovincial migrants.

2.4.3 Intraprovincial Migration

Intraprovincial migration, the movement of people from region to region in Ontario, is the largest component of migration. It accounted for 80% of the migration to and from Hamilton-Wentworth between 1981 and 1990. Intraprovincial migration is the component of migration which consistently produces large negative flows of population from the Region.

Slow population growth between 1976 and 1981 was largely the result of negative net intraprovincial flows averaging 1,500 people a year. Between 1981 and 1986, the annual average number of negative net intraprovincial migrants declined to 748. More recently intraregional losses increased slightly, between 1986 and 1990 to an annual average of 817 people.

Figure 7



Between 1981 and 1986, Hamilton-Wentworth experienced a large net gain of migrants from Halton but large net losses to almost all other regions in Ontario, in particular Haldimand-Norfolk, Metro Toronto, Peel and Niagara.

In the "1988 Population Projections" it was assumed that in the short term (from 1988 to 1996) net migration would remain at a net loss of 630 people per year. Three long term scenarios were developed. The low migration scenario assumed annual net intraprovincial migration would drop to minus 850 people. The most likely scenario assumed an improvement to minus 150 people while the high migration scenario assumed a net increase of 250 people.

2.4.3.1 Future Intraprovincial Migration Possibilities

This component of migration is the most open to the influence of local factors. The paramount reasons people move relate to jobs and housing.

As part of the implementation of the Region's 1986 Economic Strategy a study of recent movers and their attitudes toward the quality of life was completed by the Peat Marwick Consulting Group in 1988. The study concluded that to increase the attractiveness of the region, municipal capital investment programs, municipal services and land development practices could be focused on the factors which influence locational decision-making in a cost-effective manner. Road quality, public transit services, police services and effective community design to ensure a variety of housing choice in high-quality neighbourhoods, were identified as potential foci for improving the attractiveness of the Region as a place to live and work.

In 1981 more people commuted to work in Hamilton-Wentworth than commuted out to work, (30,100 in and 23,100 out). By 1986 more people commuted out of Hamilton-Wentworth to work than came in, (30,000 in and 31,900 out). Nevertheless, Hamilton-Wentworth has a relatively self-contained economy in comparison to many municipalities in the Toronto area. The trend to inter-suburban commuting across the Greater Toronto Area will have an influence on migration to and from the region.

Improved GO Train service and construction of other transportation infrastructure over the next decade may facilitate interregional migration to Hamilton-Wentworth. If the GTA continues to grow there will be an increase in the amount of spill over into Hamilton-Wentworth. Comparatively low housing costs and access to cultural and recreational facilities and parkland are attractive quality of life features which may become more important. New development areas in Hamilton Mountain, Waterdown, Ancaster and Stoney Creek may be an increasingly viable choice of residence for people commuting to work in Halton or Peel.

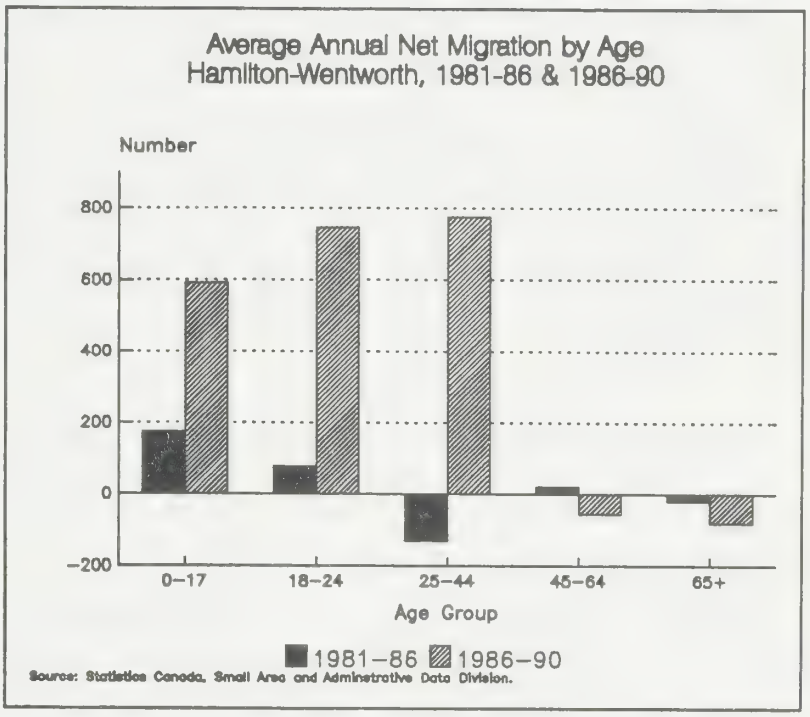
In the revised regional projections it is assumed that Hamilton-Wentworth will witness more balance in the flow of migrants. By the year 2000 it is anticipated that net losses due to interregional migration will decrease and eventually reach zero. After the year 2000 it is assumed that levels will remain stable at zero.

2.4.4 Who Migrates?

Identification of which age groups are migrating in or out of Hamilton-Wentworth is important because of its influence on the future age structure of the population. If the Region is losing a significant number of women aged 25 to 44 this will have a large affect on future population growth because this is a large portion of the child bearing population.

Between 1981 and 1986 the largest net loss was in people aged 25 to 44 while the largest net gains were in the youngest age groups. More recently, this trend reversed with people aged 25 to 44 making up the largest proportion of migrants moving into the Region. There has also been a slight increase in the number of older people, aged 45 and over leaving the Region. This is possibly a reflection of more affluent retirees moving to retirement destinations outside the Region.

Figure 8



2.4.4.1 Possibilities for Future Age Distribution of Migrants

Between 1986 and 1990, approximately 35% of the net migrants were aged 25 to 44, 35% were aged 18 to 24, and 30% were aged 0 to 17. In distributing projected net migrants, according to age, it is assumed that the 1986-1990 proportions will continue. Accordingly, net migration of people aged 45 and over is assumed to be zero.

2.5 Review of Assumptions

Fertility rates will increase marginally to 1.76 births per woman, until 1996 and then drop back to 1.68 births per woman for the long term.

Male life expectancy at birth will rise from 74.1 years in 1990 to 78.3 years in 2015, while life expectancy for females increases from 79.5 to 84.5 years.

Net annual international migration will remain high at 3,150 people until 1995, decline to about 1,650 people until 2000, and begin a slow increase to 2,070 people by 2015 and then remain at this level.

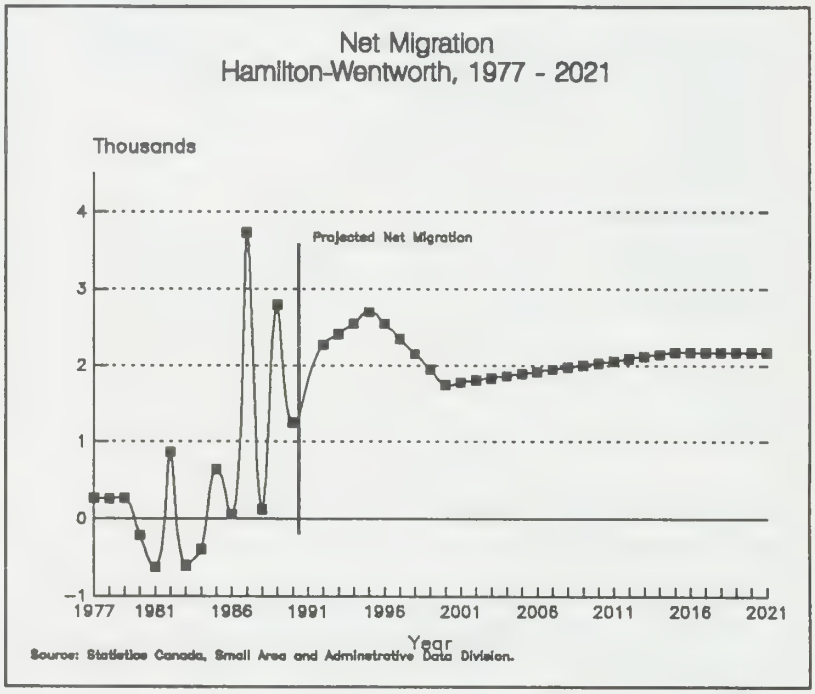
Net annual interprovincial migration will remain constant at an annual average of 100 migrants through entire projection period.

Net annual intraprovincial migration will increase from minus 800 people to 0 by 2000 and then remain at this level for the remainder of the projection period.

Total net migration will increase until 1995, decline until 2000, increase until 2015 and then remain at a constant level. Annual average net migration will be 2,055 period for the projection period 1992 to 2021.

Of the net migrants, 35% will be aged 25 to 44, 35% aged 18 to 24, and 30% aged 0 to 17. Net migration of people aged 45 and over will be zero.

Figure 9



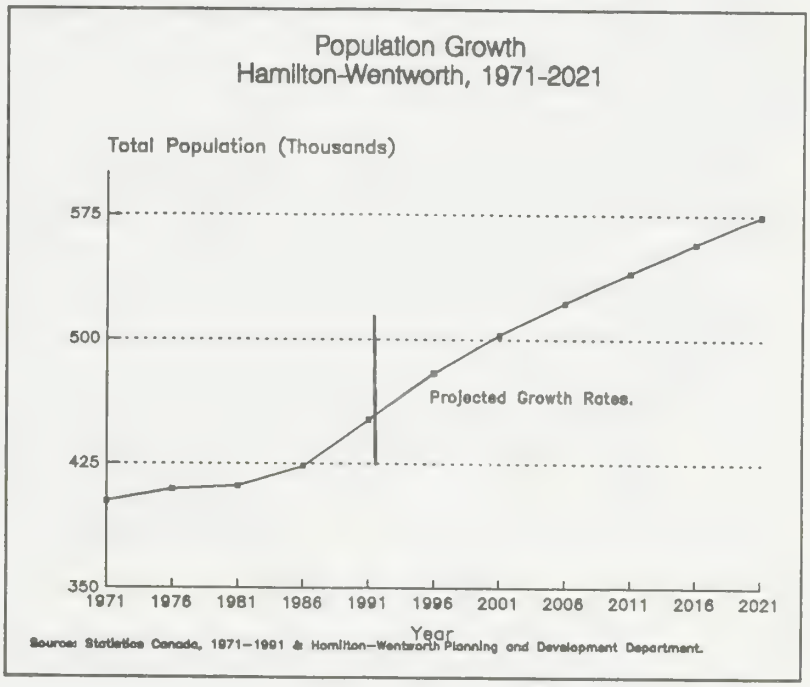
3. POPULATION PROJECTIONS: 1991 to 2021

3.1 Population Growth

Between 1991 and 2021 the population is projected to grow by 114,800 people, a 25% increase over 1991. The population is projected to be 566,465 people by 2021.

Population growth is expected to remain relatively high in the 1990s because of high levels of international migration and increases in the fertility rate. Total net migration will account for over half of the increases. The population of Hamilton-Wentworth is projected to increase from 451,665 people in 1991 to 498,050 people in 2001. This is equivalent to an annual average increase of about 4,650 people, over the 10 year period.

Figure 10



After the year 2001, population growth rates will slow due to an expected return to lower fertility rates and uncertainty about future levels of international migration. The beginning of the new century will see the Region's population grow by an average of 3,420 people per year.

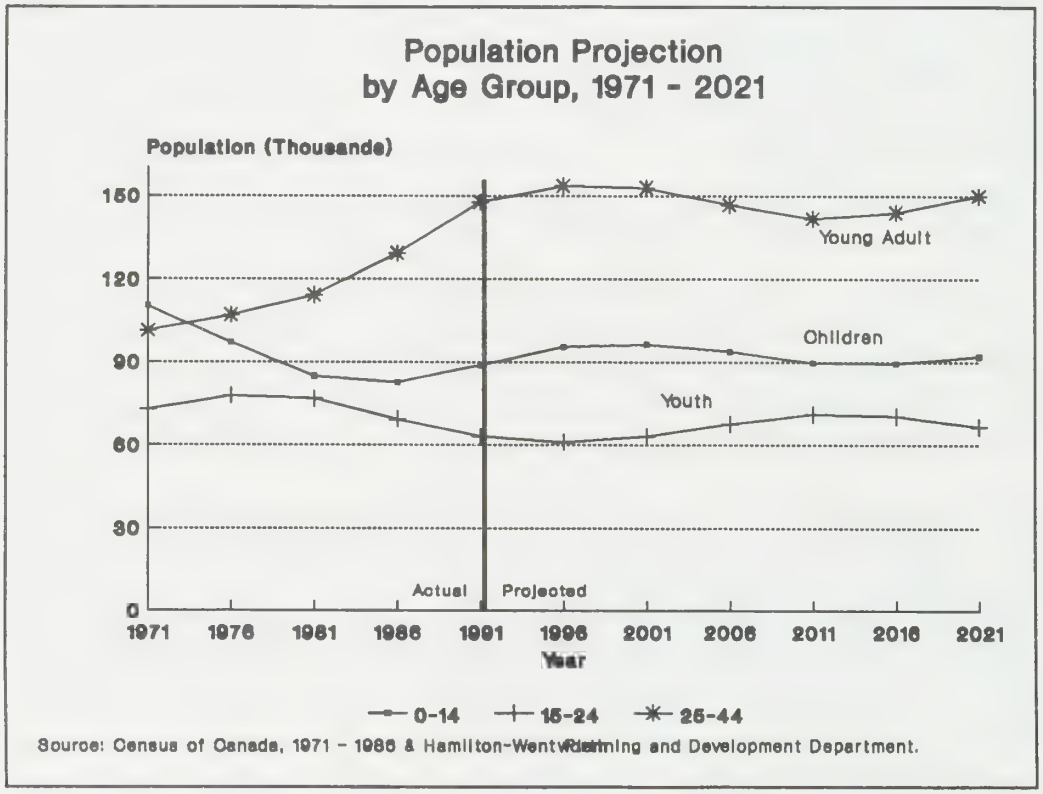
These projected trends are consistent with provincial projections prepared by the Ministry of Treasury and Economics. A variety of social and economic issues arise from population and demographic trends. To forsee the potential implications it is necessary to examine the age specific characteristics of population growth, rates of household formation and changes in the labour force. These characteristics influence the size and nature of the labour force, the demand for community services and housing, the need for education, and the expenditures and revenues of government.

3.2 Age Composition

Over the thirty year projection period there will be significant change in the age composition of the population. The shift to an older population will continue and intensify after 2011. The median age of the population will shift from 33 years in 1991 to 41 years in 2021. The population growth rates of different age groups will vary considerably. For example, the number of children (aged 0 to 14) is expected to remain relatively constant. In contrast, the middle age population (ages 45 to 64) will increase dramatically between 1991 and 2011, then level at approximately 150,000 people.

Increases in life expectancy and the aging of the baby boom generation are the two biggest factors contributing to large scale changes in the age distribution. Three significant trends are: (1) the decline in the number of young adults and consequently new labour force entrants; (2) the movement of the Baby Boom Generation into middle age and old age after 2011; and (3) the aging of the existing elderly population.

Figure 11a



3.2.1 Children (0-14 years)

The recent increase in fertility rates is reflected in the projected increase in the number of children. Between 1991 and 2001 there will be an 8% increase, from 88,665 to 96,355, in children aged 0 to 14. After 2001, the Baby Boom Generation will be replaced by a much smaller cohort, resulting in a decline in the number of children. This decline will continue until 2016 and then level off at around 90,000 children.

There are a number of possible implications of the projected changes in the number of children. Although the number of people aged 0 to 14 is expected to remain around 90,000 people for the next 30 years, the ratio of children to the total population will continue to decline from 20% in 1991 to 16% in 2021. This may mean a continued shift in the proportion of public expenditures from the young to the old as new youth oriented facilities such as schools or active playgrounds will not be necessary. The potential savings from reduced capital expenditures will depend on where people with young children choose to live and how the institutions respond (e.g. smaller neighbourhood schools or increased busing to central facilities). Opportunities for the alternative use of elementary schools may increase.

3.2.2 Youth (15 - 24 years)

The number of youths in Hamilton-Wentworth is projected to decrease from 63,000 in 1991 to 61,095 in 1996. After 1996, there will be an increase with the number of youth peaking at 71,370 in 2016. The increase is a reflection of the "Baby Boom Echo" (children of parents from the Baby Boom Generation) entering this age group.

Changes in the number of people aged 15 to 24 will have an important affect upon the growth of the labour force, because this is the main source of new workers. Higher labour force participation rates of particular groups may help offset the projected decline of this age group. The number of women in the labour force is expected to continue to increase. Changing trends in early retirement and working after age 65 will also affect the availability of jobs and the demand for new workers. If the number of new labour force entrants remains small, policy makers and businesses may try to encourage older workers and more women to enter the labour force.

In the short term, businesses which depend on the availability of seasonal workers will find it more difficult to find employees. Declines in the number of young workers could affect the hiring flexibility of institutions such as the armed forces, insurance companies, or banks that usually seek youthful recruits. The retail trade sector, where almost one-third of employees are under age 25, is likely to experience difficulties in recruiting sufficient staff.

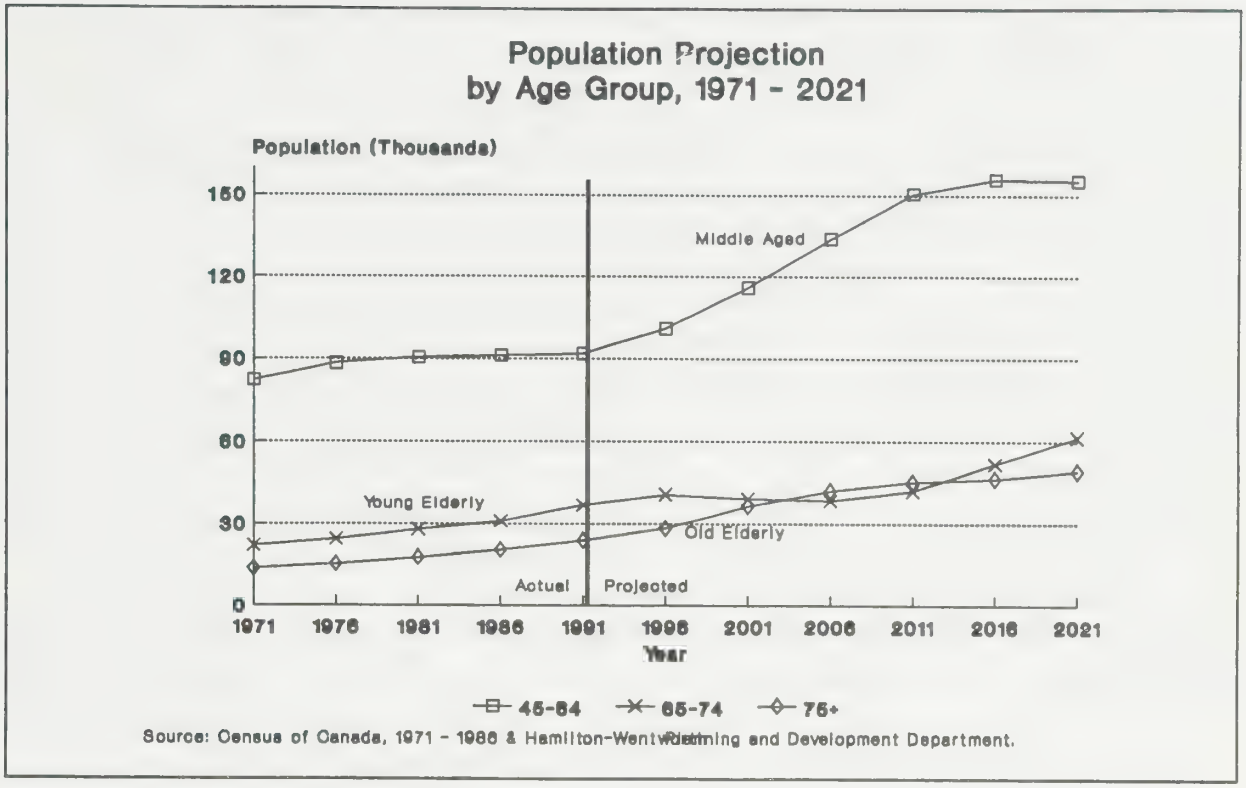
3.2.3 Young Adults (25 to 44 years)

The number of people in this age group will peak in 1996 at 153,325 and then decline to around 141,420 in 2011. After 2011, there will be a moderate increase as the Baby Boom Echo moves into this age cohort.

The decline in the number of young adults over the next twenty years potentially means there will be fewer renters, first time home buyers, and fewer young mobile adults in the labour market. This age group tends to be a significant driving force in the economy. It has been responsible for much of the demand for consumer durables and big ticket items like automobiles, furniture, appliances and housing, as new households were established.

Total net migration is a significant component of the projected population increase. Over 50% of the total population growth will come from total net migration. Since these projections assume that net in migrants will be between 0 and 44 years old the trend toward a lower proportion of young people in the population would be noticeably stronger if not for high levels of migration.

Figure 11b



3.2.4 Middle Age (45 to 64 years)

The most dramatic size changes will occur in this age group. Fuelled by the aging of the Baby Boom Generation, the number of people aged 45 to 64 will increase by 62% in 20 years, from 91,895 in 1991 to 149,420 in 2011. After 2011 there will be only minor change in the size of this age cohort.

The movement of the Baby Boom Generation into middle age has several implications. It is increasingly difficult for people to contemplate retraining or to switch careers as they grow older. However, employment retraining and skill upgrading is generally thought to be a key component of succesful economic restructuring.

The availability of capital should increase as a larger group of people enters their peak savings period before retirement. Pressure to access the large pension fund pools will increase. The combination of fewer younger workers and the availability of capital may encourage businesses to substitute capital for labour, changing the nature of the workplace.

As a greater number of people approach age 65, retirement issues will become more important. Some industries may try to encourage workers to take early retirement in an effort to open positions for young workers they wish to keep. Others may ask workers to remain past age 65 because of a lack of young workers willing to fill vacated positions. Pension rules will be a more important consideration for workers and the use of pension funds as an economic policy tool will be more of a public issue.

Many of the people in this group will have parents entering the later stages of life. Rather than witness the institutionalization of their parents, this generation may choose to take the older parents into their homes in the space vacated by their children. We may expect housing with built-in flexibility of design to accomodate changing household types (e.g. accessory apartments, granny flats) to be of more interest in the future. Subsequently, changes to building codes, zoning by-laws, and flexible parking standards may be necessary.

As the Baby Boom Generation moves into middle age there could be an increase in the number of households reconsidering their location. With improved purchasing power and higher savings the lifestyle choices of this group will determine many housing market opportunities and the form of community settlement patterns. The type of housing desired by this age group in the future will be dictated by their financial capabilities and the growing diversity of family types.

This group will generally have the financial ability to consider relocating from sub-urban homes to up-scale urban living or to more rural properties and cottages because of the dramatic increase in two-earner families that occurred in the 1980s and 1990s. The safety, access to services and cultural facilities, and alternative housing arrangements available in urban neighbourhoods will be key locational factors determining the potential for resettlement of older neighbourhoods.

3.2.5 The Elderly (65+ years)

Much has been written and published about the greying of our population. Throughout the 20th century the number of people aged 65 and over has increased and continues to make up a growing proportion of the total population. However, during the next 15 years the rate of increase in the elderly population will decrease because the people entering old age will be those born during the 1930s when birth and immigration rates were low.

The significant trend for the 1990s is the large increase in the number of elderly living well into their eighties. This trend is of particular concern because the old elderly are often the ones in greatest need of public assistance and care.

The substantial change in the size of the elderly age group will start in the year 2011, when the first of the Baby Boom Generation reaches age 65. During the ten year period between 2015 and 2025 the majority of the Baby Boom Generation will reach age 65. Just as this group filled schools to overflowing during the 1960s and 1970s, the elderly boom will again present a challenge to society.

Many people will require community based health and social services to help them remain in their own homes. There are already growing demands to create more services for senior citizens in the community and to change the role of social service institutions. The coming increase in the number of elderly presents a great challenge to create or redirect social services for the elderly to allow for multiple options for independent lifestyles. Bathroom and kitchen renovations are often necessary to allow people with reduced mobility to continue to live at home. Fortunately, there is a fair amount of lead time before the major dramatic changes occur in the size of this age group.

An aging population will affect the housing market. Recent trends suggest that many elderly are attracted to condominiums as a place of residence. Therefore, retirement communities such as St. Elizabeth's Village, will likely continue to find a ready market. The increased availability of alternative housing means a greater number of elderly will move after, or just before, retirement and consequently increase the supply of older single family housing on the market.

Another issue of concern is the potential shift in use and mode of transportation. Many older people are unable to drive or walk for any distance. Neighbourhoods with higher densities and a mix of uses will be most amenable to the needs of an older population. Accessibility to shopping and other community services may be secured through effective community design where services are located close to where people live or by finding alternatives to the private automobile. An older population tends to use more public transit. Older pedestrians will also benefit from modifications such as sloped curbs or extended traffic signals.

4. HOUSEHOLD FORMATION TRENDS

4.1 Growth

Change in the number of households is related to population growth and trends in household size (persons per household). Despite Hamilton-Wentworth's slow rate of population growth, there has been a large growth in the number of households in the region. The number of households in Hamilton-Wentworth increased by 9% from 155,600 in 1986 to 169,120 in 1991. In comparison population growth for the same time period was only 6.5%.

Table 4

Population and Household Growth
Hamilton-Wentworth, 1976 - 1991

	Households	Population
1976	136,135	409,500
1981	147,200	411,400
% Average Annual Growth 1976-1981	1.6	0.1
1986	155,600	423,400
% Average Annual Growth 1981-1986	1.1	0.6
1991	169,120	451,665
% Average Annual Growth 1986-1991	1.7	1.3

Source: Census of Canada, 1976 - 1986 and
Ministry of Revenue, Assessment Division, 1991.

4.2 Size

The average number of persons per Ontario household was 2.8 in 1986, down from 3.7 in 1961. This decline resulted in a rate of household growth that was markedly faster than population growth. The decline in average household size was most rapid during the 1971-1981 time period. Average household size in Hamilton-Wentworth was also characterized by decreases, declining from 3.01 in 1976 to 2.66 in 1991.

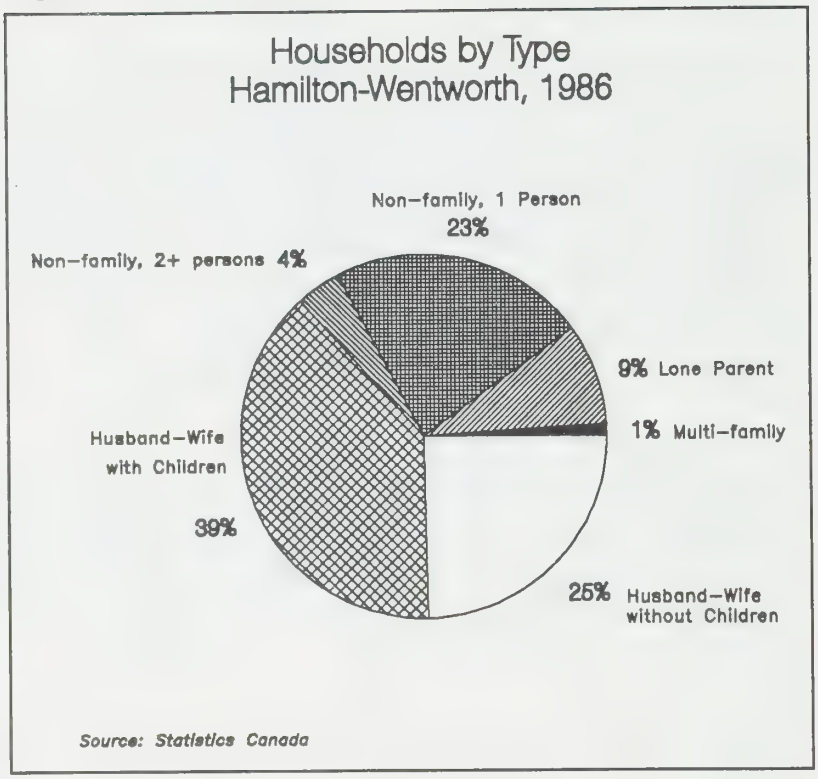
4.3 The Changing Family Structure

The decline in average household size is reflected in rapid household growth. Some of the factors contributing to the decline in household size are: changing attitudes about the traditional family unit; increased divorce and separation rates; low fertility rates; increased participation of women in the labour force; and growth in the number of people living alone, particularly young adults and elderly women.

The family has also changed because of declining marriage rates and increasing divorce rates. Just over 60% of Ontario's over 15 population is married, a decline from 70%, 30 years ago. Almost 1 in every 3 marriages now end in divorce, and the development of no fault divorce laws may result in an even higher rate of divorce. Following this trend, the number of remarriages has almost doubled since 1977, and almost one third of all marriages are now remarriages. Common-law unions are increasing, making up 6% of all husband-wife families in Ontario.

The fastest-growing "category" of family--the lone parent family--is the result of the high rate of separation and divorce. Between 1956 and 1986 the number of lone parent families in Ontario tripled, mainly as a result of the 400% increase in divorced or separated single parents. The stress of family break-up and the changes in living standards experienced by former family members has meant many people turning to social agencies for both emotional and financial assistance.

Figure 12



The household without children is becoming more common. Although families with children still make up the largest proportion of households in Hamilton-Wentworth, the number has remained unchanged since 1976. The largest growth since 1976 has been in single person households and lone parent families.

As of 1986, Hamilton had the most diverse range of household types among the area municipalities. 58% of Hamilton households were husband-wife. In the area municipalities, the proportion ranged from 67% in Dundas to 84% in Ancaster.

The geographic distribution of people by life-cycle stage or family type is an issue for planners, land developers and society. The planned suburb dominated by nuclear family households no longer represents the diversity of Canadian society. The need for all municipalities to plan for a diversity of family types and the development of a mix of housing types at various densities is here now and is likely to continue.

The increased number of lone parent families combined with growth in the number of two parent working families will keep the need for child care on the public agenda although the number of children will not increase. With the majority of lone parent families living in poverty (60%), income assistance, child nutrition, availability of daycare, flexible work arrangements and affordable housing will remain important issues.

4.4 Headship Rates

The age-sex composition of the population influences the rate of household formation. The impact of the age distribution is best illustrated through the concept of headship rates. Headship rates measure the propensity of the selected age groups to form households.

As a person ages, the likelihood of becoming the head of a household changes. For example, in Ontario, in 1986, only 13% of males aged 15 to 24 were household heads, compared to 68% of males aged 25 to 34. For males, the headship rate increases and peaks in the aged 45 to 54 cohort. For women, the headship rate does not increase dramatically until age 55, when the death of a spouse often results in the female heading the household.

Table 5

Household Headship Rates by Sex and Age of Household Head
Ontario, 1961 to 1986

	1961	1966	1971	1976	1981	1986
FEMALES						
15-24	1.3	2.2	3.8	7.1	9.8	9.5
25-34	3.5	4.7	8.1	13.4	21.9	24.1
35-44	5.8	6.6	8.5	12.2	19.7	23.4
45-54	11.4	11.9	12.6	14.8	20.4	22.5
55-64	20.0	22.6	22.0	24.0	26.5	27.5
65+	33.7	36.6	38.6	42.5	44.9	45.4
Total	10.5	11.6	13.4	17.0	22.5	24.6
MALES						
15-24	13.5	14.8	17.6	18.6	16.2	12.8
25-34	71.7	76.7	79.3	79.9	75.2	67.9
35-44	84.3	87.1	89.8	90.8	87.4	84.2
45-54	86.8	89.4	91.0	91.6	89.0	87.7
55-64	84.6	87.8	89.5	90.8	88.0	87.6
65+	76.4	78.6	80.2	82.3	80.8	81.7
Total	67.3	67.9	68.3	69.1	66.8	65.7
Total Both Sexes	38.8	39.5	40.5	42.6	44.1	44.5

Source: Statistics Canada, Census of Canada.

Household headship rates, also vary according to the type of family. Between 1971 and 1986 the propensity to form family households remained relatively stable while there was an increasing propensity to form non-family households. This propensity increased the greatest for the younger age groups (aged 15 to 34).

Table 6

Household Headship Rates by Age and Household Type
Hamilton-Wentworth, 1971 to 1986

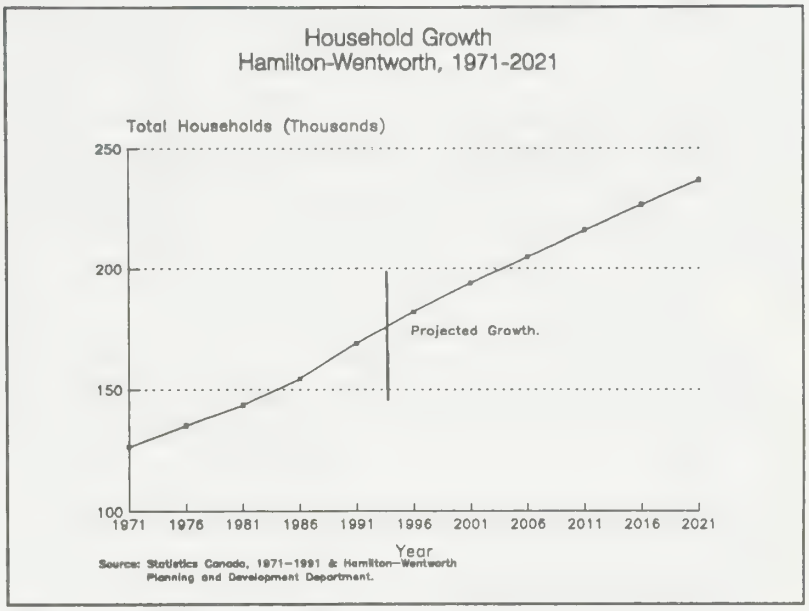
	1971	1976	1981	1986
FAMILY				
15-24	8.35	8.45	7.83	6.47
25-34	39.74	39.75	38.07	35.41
35-44	45.93	47.46	47.58	46.17
45-54	46.14	46.57	47.04	47.02
55-64	43.71	44.69	43.68	43.45
65+	31.22	31.63	31.25	31.80
Total	33.46	33.76	33.45	33.41
NON-FAMILY				
15-24	2.96	5.70	6.32	5.62
25-34	4.57	8.35	11.23	11.27
35-44	3.61	4.73	6.12	7.75
45-54	5.43	6.34	7.40	7.96
55-64	11.79	12.33	12.94	13.54
65+	24.83	28.12	30.06	30.23
Total	7.46	9.81	11.62	12.26

Source: Statistics Canada.

5. HOUSEHOLD PROJECTIONS

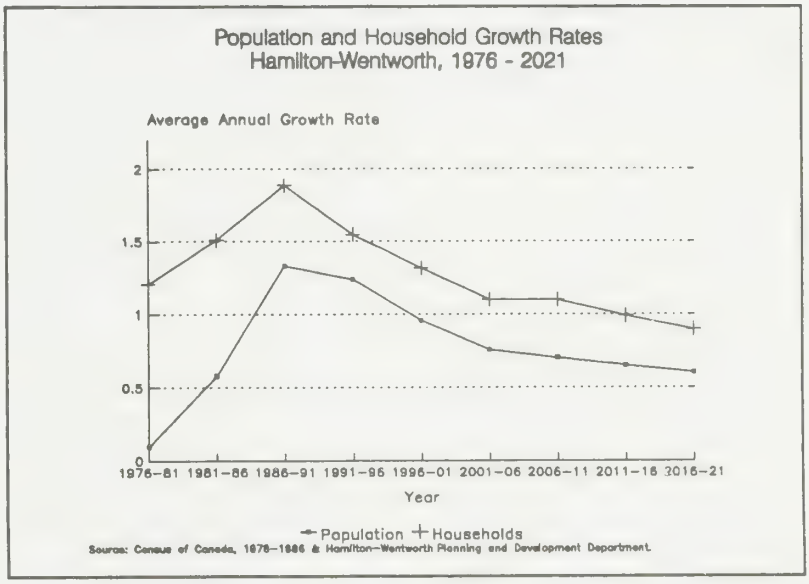
The age structure of the population affects household growth. For example, in the 1980s the baby boom was aged 25 to 44. During this age, the rate of household formation is at its greatest. In the 1990s, the baby boom will be replaced by a much smaller 25-44 age group and result in a slowing of new household formation. At the same time, the aging of the population will lead to an increase in the number of older households, which tend to be smaller than households headed by young adults.

Figure 13



The number of households in Hamilton-Wentworth is projected to increase by 63,115 from 169,120 in 1991 to 232,235 in 2021, a 37% increase. In comparison, population growth is expected to be 25% over the same time period. Although household growth rates will remain higher than population growth rates the difference will not be as significant as during the 1970s.

Figure 14



Household growth rates will remain higher than population growth rates because of the aging of the population. The elderly tend to have smaller households due to children leaving home or to the death of a spouse.

Because household growth will occur at a slightly greater rate than population growth, average household size will continue to decline from 2.66 persons per household in 1991 to 2.44 persons per household in 2021. It is uncertain the affect this will have on the size of houses people will be looking for since the recent declines in household size have also been accompanied by major increases in the size of new homes being built. Young renters and the elderly will have different needs.

On average, Hamilton-Wentworth will see the formation of about 2,100 new households every year between 1991 and 2021. The most rapid growth is projected for the five years between 1991-1996 (2,380 annually). Less rapid growth is forseen between the years 2001-2006 (1,940 annually) and 2016-2021 (1,980 annually).

The need for settlement pattern policies is one of the key implications of the projected growth in population and households. How much land needs to be designated for housing to accommodate population growth depends not only on new household formation in the Region, but also on the success of intensification efforts, infill and redevelopment schemes and the density of new developments. These issues are discussed in Chapter 8.

6. LABOUR FORCE TRENDS

Over the last three decades there has been considerable growth in the size of the labour force. This growth is the result of increased population size plus dramatic increases in the number of women entering the labour force.

According to an employment survey conducted by the Planning and Development Department, the total employed labour force in Hamilton-Wentworth increased by almost 16,880 workers from an estimated 176,655 people in 1982 to 193,530 in 1990. This 10% increase in the number of workers is greater than the estimated rate of population growth (8%) for the same time period. In 1982, there were approximately 68,600 females in the workforce. In 1990, the total number surveyed was over 89,350 females, representing an increase of almost 21,000 or 33%. In contrast, total male employment decreased by 6% from 108,060 in 1982 to 101,785 in 1990.

In the last twenty years participation rates have changed the greatest for women and particularly, women aged 25 to 54. There has also been significant change in participation rates for males aged 55 and over. Female participation rates increased from 35% in 1966 to over 60% in 1991. In contrast male participation rates have declined from over 75% to just over 71%.

Labour force participation rates in Hamilton-Wentworth are similar to Provincial rates. Female participation rates have been slightly lower in Hamilton-Wentworth while male participation rates closely follow provincial trends.

Table 7

Labour Force Participation Rates by Sex & Age
Ontario, 1971 - 1991

	1971	1976	1981	1986	1991
Males					
15-19	49.9	51.6	57.9	56.9	58.1
20-24	89.6	87.2	92.2	91.2	82.3
25-34	95.3	92.1	96.3	95.5	94.2
35-44	96.0	92.8	96.7	96.0	95.0
45-54	94.1	90.9	94.2	93.2	92.2
55-64	84.9	78.8	80.4	74.3	64.1
65+	26.4	20.8	17.8	14.8	12.8
Females					
15-19	40.6	46.0	55.8	56.1	59.1
20-24	66.6	70.3	80.8	84.0	77.0
25-34	50.1	57.8	70.7	76.6	79.2
35-44	50.5	58.2	69.5	76.3	81.0
45-54	50.9	53.8	61.1	67.5	73.3
55-64	39.0	37.6	40.0	40.6	40.2
65+	8.5	6.6	5.7	4.7	4.5

Source: Statistics Canada.

6.1 Future Labour Force and Commuting Possibilities

The size of the labour force is forecast by applying age and sex specific labour force participation rates to the age and sex breakdown of the forecast population. This provides an estimate of the resident labour force. The resident labour force is converted into the employed labour force, working in Hamilton-Wentworth by applying an assumed unemployment rate and an assumed net rate of commuting. This is not an economic forecast but an estimation of the number of people available to work and the number of jobs which would have to be created locally.

Participation rates are assumed to continue to change between 1991 and 2001. After 2001, the shift to an increased number of women in the workforce and opportunities for early retirement should level off. These participation rate assumptions were part of the 1989 Greater Toronto Area Employment Forecasts.

The major features of forecast changes in participation rates are:

- a small change in the rates for people aged 15 to 24, in response to changing school attendance patterns and propensity to seek part-time work. Male and female rates are kept equal, in keeping with the historic trend;

- a dramatic increase in female participation rates for people aged between 25 and 64. Female participation rates are increased to equal male participation rates except for women aged 25 to 34, the prime child bearing years. This is a continuation of the historic trend and one which has already been observed in many European countries, such as, Sweden;

- little change in participation rates for males aged 25 to 64, except for people aged 55 to 64 which decline slightly to account for early retirement; and,

- no change in participation rates for people aged 65 and over because there are two emerging trends which may offset one another. Statutory retirement and an increasing number of pensionable individuals should decrease labour force participation while a healthier elderly population could be inclined to stay in the labour force. Possible labour shortages in sectors which traditionally relied upon the young could lead to employers targeting the elderly to fill these jobs.

Unemployment in Hamilton-Wentworth currently stands at over 11%, up dramatically from the low level of 4% seen in 1988. Unemployment rates fluctuate in response to changes in the local, provincial and national economy. Unemployment rates are assumed to drop over the next ten years as the Ontario economy adjusts to changes caused by restructuring. After 2001, unemployment rates are kept constant at 5% which is the prevalent assumption for full employment.

The 1986 Census of Canada revealed Hamilton-Wentworth to be a net exporter of commuters whereas, in 1981 Hamilton-Wentworth was a net importer of commuters. Since 1986 Hamilton-Wentworth's economy has experienced significant change and restructuring. There is now more diversity in the local economy which should reduce future increases in the number of people commuting out of the Region to work. Net commuting rates have been kept constant at the 1986 level of -2% of all employable workers.

Table 8

Projected Labour Force Participation Rates by Sex & Age Hamilton-Wentworth, 1986 - 2021

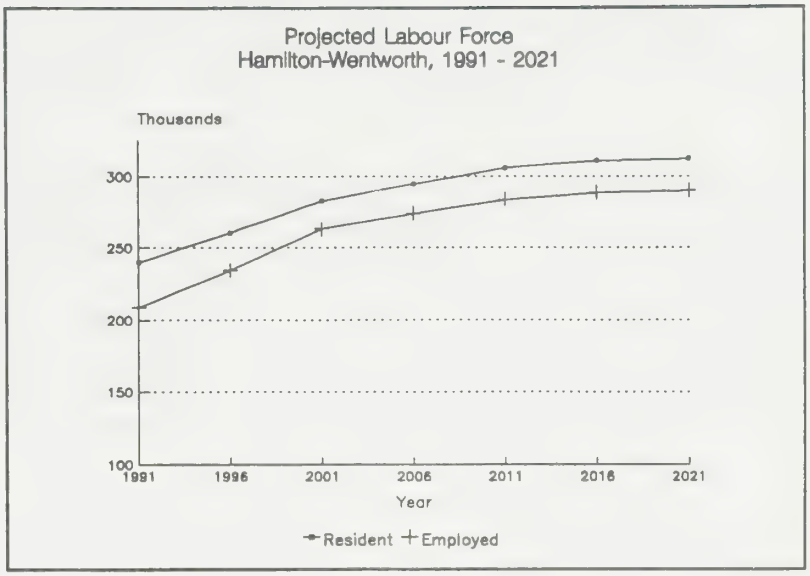
Males	1986	1991	1996	2001	2021
15-19	56.9	58.1	58.5	59.0	59.0
20-24	91.2	82.3	83.6	85.0	85.0
25-34	95.5	94.2	94.1	94.0	94.0
35-44	96.0	95.0	95.0	95.0	95.0
45-54	93.2	92.2	91.5	91.0	91.0
55-64	74.3	64.1	63.5	63.0	63.0
65+	14.8	12.8	12.4	12.0	12.0
Gross Participation Rate	75.5	73.7	73.4	72.8	68.8
Females					
15-19	56.1	59.1	59.0	59.0	59.0
20-24	84.0	77.0	81.0	85.0	85.0
25-34	76.6	79.2	82.0	86.0	86.0
35-44	76.3	81.0	88.0	95.0	95.0
45-54	67.5	73.3	82.0	91.0	91.0
55-64	40.6	40.2	51.0	63.0	63.0
65+	4.7	4.5	4.2	4.0	4.0
Gross Participation Rate	55.0	57.9	62.6	67.4	62.3
Total Participation Rate	64.5	65.4	67.8	70.0	65.4

Source: Statistics Canada, 1986 & Hamilton-Wentworth Planning and Development Department.

7. LABOUR FORCE PROJECTIONS

Hamilton-Wentworth's projected resident labour force will increase by 72,115 people, from an estimated 240,125 people in 1991 to 312,240 workers in 2021. Growth in the labour force will be greatest between 1991 and 2001, as the proportion of women in the workforce increases from 46% to 50%. Average annual growth between 1991 and 2001 will be 1.8% which will drop to 0.8% between 2001 and 2011. After 2011 the labour force will show little increase as the baby boom moves into elderly age groups. Average annual growth will decline to less than 0.1% between 2016 and 2021.

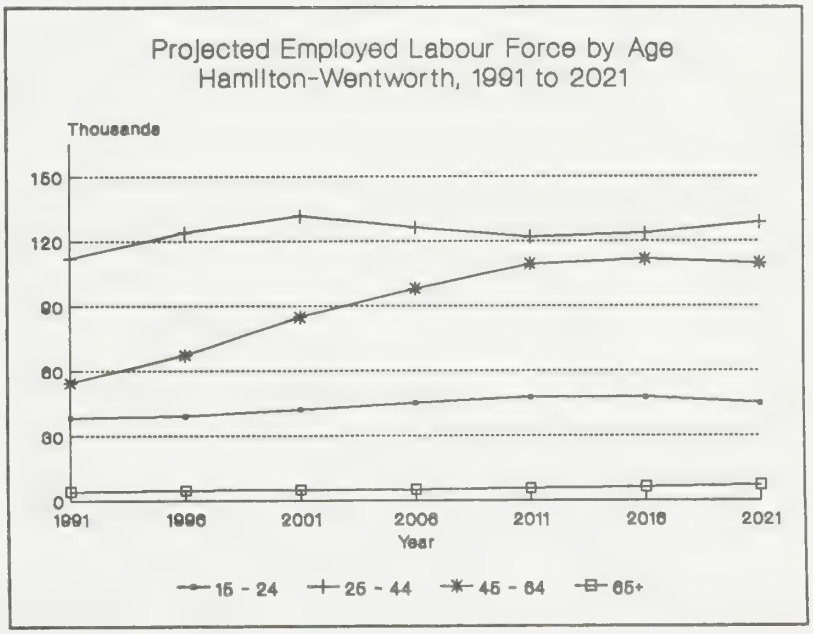
Figure 15



The slower rate of labour force growth may result in pressure to increase labour market participation of particular groups or in pressure to maintain high immigration.

Reflecting the aging of the population, the labour force will become older. The number of people aged 45 to 64 in the labour force will increase dramatically and approach the number aged 25 to 44 by 2011.

Figure 16



The growth in the number of experienced workers may also result in limited promotion opportunities for baby boomers. The combination of an older established workforce and the relative lack of new young workers may encourage employers to offer opportunities for lateral movement within their organizations and to promote "multi-skilling" of their workers, i.e. the training of individuals for more than one set of tasks.

Because of unemployment and a negative net commuting rate, the number of employed workers in Hamilton-Wentworth is projected to be less than the resident labour force. The employed labour force will grow from an estimated 208,910 to 290,380 in 2021. Between 1991 and 2001 the rate of increase in the employed labour force will be higher than the rate of increase in the resident labour force because the unemployment rate is assumed to drop from 11% to 5% over the same period. Subsequently, the changes in the size of the employed labour force will track the growth in the resident labour force, dropping off after 2001. Over 65% of the additional workers, 54,600 of the 81,470, will join the employed labour force in the fifteen years between 1991 and 2006.

8. AREA MUNICIPAL HOUSEHOLD DISTRIBUTION

The previous chapters describe projected changes in population, household size and labour force over the next thirty years in Hamilton-Wentworth as a whole. This chapter is an overview of the Region's up-dated distribution of projected households among area municipalities.

Over the next thirty years a projected 63,100 additional households will be formed in the region, resulting in an equivalent demand for new housing units. The average annual number of units required is about 2,100 to the year 2021. The actual demand for units will certainly vary from year to year as a result of both market influences, such as interest rate changes, and demographic trends, such as the changing age composition. The projections suggest that annual new unit demand due to demographic factors will be highest in the early years of the projection period.

The projections are based on an objective analysis of the existing population and past trends--trends which are evident in society at large. However, the geographic distribution of growth within the region cannot be predicted on this basis since the availability of land, servicing and municipal policy are key factors which determine the location, type and density of new unit construction.

8.1 Urban and Rural Distribution

From a Regional planning perspective, urban growth has advantages over rural growth because it requires less land per unit; results in less land, energy and investment devoted to transportation and servicing; and diverts development away from environmentally significant areas and land with good agricultural potential. Vision 2020, developed by the Regional Chairman's Task Force on Sustainable Development and adopted by Regional Council, also states a preference for a compact urban form and development within firm urban boundaries.

The need for additional development lands, protection of prime agricultural lands, and ability to promote a compact urban form was considered. Also, since most of the major infrastructure necessary to service proposed development is already in place, a compact urban form has the potential to reduce the cost of servicing developing areas. Opportunities to redirect expenditures from servicing newly developing areas to maintaining and improving infrastructure in areas with existing development will be available. Public investment could be focused on areas where higher densities and/or increased mixing of uses are desired.

In keeping with these preferences a limit was established for development in the rural area at an average of 80 units per year, and no more than 400 units in any five year period. The revised Official Plan will contain policies to support and monitor these maximums. The bulk of new housing units are allocated to urban areas.

Table 9

Unit Requirements
Hamilton-Wentworth, 1991-2021

Year	Housing Unit Requirement	Urban Area Requirement	Rural Area Maximum
1991-2021	63,100	60,700	2,400
Average Annual	2,103	2,023	80

Source: Hamilton-Wentworth Planning and Development Department, 1992

8.2 Area Municipal Distribution

In addition to the preference for a compact urban form, the allocation of household growth to area municipalities reflects factors such as the amount of vacant, residential land; opportunities for redevelopment, infill and conversion; implications of designating or servicing additional residential land; and, area municipal objectives and market demand.

Table 10 **Expected Unit Construction, 1991-2021**

	Urban and Rural 1981-June 1992	Urban Area 1992-2021		Rural Area 1992-2021	
	Ave. Ann.	Ave Ann.	Total	Ave Ann.	Total
Ancaster	231	265	7,950	12	360
Dundas	112	80	2,400	0	0
Flamborough	169	280	8,400	48	1,440
Glanbrook	30	95	2,850	13	390
Hamilton	1,150	783	23,500	0	0
Stoney Creek	496	520	15,600	7	210
Hamilton-Wentworth	2,187	2,023	60,700	80	2,400

Source: Hamilton-Wentworth Planning and Development Department, 1992

8.2.1 Ancaster

Ancaster's population is expected to be approximately 43,000 by 2021, 95% higher than in 1991. The rate of household growth and housing unit development is expected to average 277 units per year - 265 units per year in the urban area and 12 units per year in the rural area. This rate of development is higher than the 231 units per year experienced between 1981 and June 1992 due to the opportunities provided by a large supply of vacant, residentially designated land.

8.2.2 Dundas

Dundas' population is expected to be approximately 25,500 in 2021, 17% higher than in 1991. The rate of household growth and housing unit development is expected to average 80 units per year. This rate of development is lower than the 112 units per year experienced between 1981 and June 1992, due to the limited supply of vacant, residential land in the municipality. A significant proportion of Dundas' growth will result from redevelopment, conversion and infill of land and buildings in the existing developed area. Dundas' share of such development is expected to be higher than other municipalities, due to the limited supply of vacant land.

8.2.3 Flamborough

Flamborough's population is expected to be approximately 53,000 in 2021, 79% higher than in 1991. The rate of household growth and housing unit development is expected to average 328 units per year - 280 units per year in the urban area and 48 units per year in the rural area. The overall level of development in the municipality is significantly higher than the rate of 169 units per year experienced between 1981 and June 1992, due to expectations of increased urban development.

The expected increase is the result of a number of factors, including: extension of GO service; removal of servicing constraints; and, proximity to employment centres in the Greater Toronto Area.

8.2.4. Glanbrook

Glanbrook's population is expected to be approximately 16,000 in 2021, 64% higher than in 1991. The rate of household growth and housing unit development is expected to be 108 units per year - 95 units per year in the urban areas and 13 units per year in the rural areas. This rate of development is higher than the 30 units per year experienced between 1981 and June 1992 due to the availability of land adjacent to the existing developed area of the Region, and to the planned services in the Mount Hope urban area.

8.2.5 Hamilton

Hamilton's population is expected to be approximately 342,000 in 2021, an increase of almost 27,000 people from 1991. The rate of household growth and housing unit development is expected to average 780 units per year. This rate of development is lower than the 1,150 units per year experienced between 1981 and June 1992, reflecting the limited supply of vacant land which is zoned or designated for residential use (unit potential 16,500).

8.2.6 Stoney Creek

Stoney Creek's population is expected to be 87,000 in 2021, 74% higher than in 1991. The rate of household growth and housing unit development is expected to average 527 units per year - 520 units per year in the urban area and 7 units per year in the rural area. This rate of development is higher than the 496 units per year experienced between 1981 and June 1991, due to the municipality's location in proximity to employment centres and transportation corridors.

9. SUMMARY OF IMPLICATIONS

Migration

- Quality of life factors, such as the quality of the natural environment, safety, access to recreational and cultural facilities will have an important impact on migration and distribution of growth across the Region.

- The large number of immigrants will increase the ethnic diversity of the population and affect educational, health, social and cultural service requirements.

- The relatively young age of immigrants partially counteracts the strong aging trend.

Housing Issues

- The allocation of housing units to predominantly urban areas and the co-ordination of transportation services, infrastructure investment and policy designations regarding compact urban form will be key factors in the eventual distribution of projected population increases among area municipalities.

- Declining rates of population growth and rates of household formation in the latter part of the projection period will likely reduce levels of future demand for residential land.

- The substantial change in the age distribution of the population as well as reduced household sizes will encourage non-traditional living arrangements, result in continued interest in accessory apartments and renovations, and lead to the under-utilization of older larger homes.

- Larger special needs markets will lead to development proposals for housing more clearly linked to specific age groups and lifestyles (e.g. retirement villages).

- Rental accommodation should become more available as the number of young adults declines after 1996.

Labour Market Issues

- The slowing rate of population growth will result in slower labour force growth.

- The slower rate of labour force growth will reduce the availibility of younger workers and generate pressure to increase the participation of particular age groups or to maintain high levels of immigration.

- The consumer demands of the middle-age population will be the driving force behind market opportunities and be critical in determining the future growth industries which will employ new labour force entrants.

- The aging labour force will shift expectations of working conditions and retraining and adjustment programs will become increasingly oriented to late-career workers.

- Demands for workplace flexibility (e.g. flexible work hours, work-at-home opportunities) will continue to increase as the result of more women entering the workforce.

Services

- Relatively stable numbers of young children will reduce the need for new educational facilities.

- Increased female participation rates in the labour force will keep the need for child care programs high.

- The baby boom echo will leave elementary school, enter high schools and then increase the demand for higher education at the turn of the century.

- After 1996, the consumer demand for household furnishings by young adults forming new households will decline for 15 years until 2011.

- Rapid growth in the number of 45-64 year olds will increase demand for less strenuous recreation facilities, and particular health and social services.

- Growth in the number of seniors will impact services such as transit, health care and the availibility of accessible housing.

10. FUTURE PROJECTIONS

Given the uncertainty inherent in long-term projections the Planning and Development Department will review the assumptions and prepare up-dated projections every five years. This five year cycle of projections should coincide with the availability of Census results and also with the regular Five Year Review of the Official Plan. The household allocations among Area Municipalities, as set out in Regional Official Plan policies, can then be up-dated acording to revised projections. The next Census will take place in 1996 and revised Regional projections can be expected in 1997.

APPENDIX A

Table
A-1

Projected Population by Age Groups and Sex, Five Year Intervals, 1991-2021

Hamilton-Wentworth

	Census			Projected Population																
	1991			1996			2001			2006			2011			2016			2021		
Age Group	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
0-4	15890	15125	31015	16710	15915	32625	15480	14755	30235	14625	13935	28560	14620	13930	28550	15255	14540	29795	15885	15135	31020
5-9	15185	14570	29755	16360	15605	31965	17075	16290	33365	15835	15120	30955	15015	14330	29345	15040	14360	29400	15685	14975	30660
10-14	14320	13585	27905	15690	15065	30755	16750	16000	32750	17445	16670	34115	16240	15525	31765	15445	14765	30210	15480	14805	30285
15-19	14750	14390	29140	14940	14220	29160	16160	15550	31710	17210	16470	33680	17940	17175	35115	16770	16065	32835	15990	15320	31310
20-24	16815	17055	33870	16120	15815	31935	16025	15335	31360	17185	16605	33790	18330	17610	35940	19140	18390	37530	17990	17300	35290
25-29	20120	19995	40115	17670	17955	35625	16840	16575	33415	16675	16025	32700	17900	17345	35245	19090	18400	37490	19920	19200	39120
30-34	19610	19890	39500	20550	20500	41050	18010	18360	36370	17170	16965	34135	17035	16440	33475	18285	17795	36080	19485	18860	38345
35-39	17200	18165	35365	20040	20375	40415	20860	20890	41750	18325	18740	37065	17515	17380	34895	17415	16890	34305	18670	18255	36925
40-44	16090	16575	32665	17605	18635	36240	20325	20750	41075	21135	21255	42390	18650	19150	37800	17885	17830	35715	17795	17350	35145
45-49	13050	12880	25930	16120	16665	32785	17625	18725	36350	20315	20835	41150	21160	21375	42535	18715	19300	38015	17965	17990	35955
50-54	11060	11055	22115	12795	12715	25510	15850	16495	32345	17385	18565	35950	20095	20695	40790	20960	21250	42210	18545	19190	37735
55-59	10645	11000	21645	10685	10850	21535	12410	12500	24910	15440	16250	31690	17010	18340	35350	19710	20465	40175	20560	21015	41575
60-64	10665	11530	22195	10020	10680	20700	10110	10585	20695	11805	12245	24050	14760	15980	30740	16315	18065	34380	18910	20160	39070
65-69	9865	11700	21565	9645	10985	20630	9120	10230	19350	9275	10200	19475	10905	11865	22770	13680	15525	29205	15135	17565	32700
70-74	6595	8500	15095	8465	10780	19245	8390	10190	18580	8045	9560	17605	8300	9605	17905	9830	11215	21045	12340	14675	27015
75-79	4680	6675	11355	5145	7455	12600	6720	9565	16285	6765	9160	15925	6600	8710	15310	6885	8810	15695	8165	10295	18460
80-84	2450	4595	7045	3110	5350	8460	3490	6185	9675	4615	8130	12745	4725	8000	12725	4650	7705	12355	4865	7815	12680
85+	1525	3875	5400	1675	4660	6335	2090	5735	7825	2450	7015	9465	3185	9390	12575	3405	10185	13590	3350	9840	13190
Total *	220505	231165	451665	233340	244230	477565	243330	254720	498050	251700	263745	515445	259995	272855	532850	268480	281555	550040	276720	289745	566465

* Totals and column values may not be equal due to rounding.

Source : Hamilton-Wentworth Planning And Development Department, 1992.

Table A-2

Projected Households by Age Group and Family Status, Five Year Intervals, 1991-2021

Family *

Age Group	Headship Rates	1991	1996	2001	2006	2011	2016	2021
15-24	6.27	3950	3831	3954	4230	4455	4412	4176
25-34	35.21	28034	26996	24571	23533	24198	25906	27277
35-44	45.96	31267	35231	38066	36515	33413	32181	33123
45-54	46.72	22447	27235	32094	36021	38929	37481	34428
55-64	43.2	18943	18246	19701	24080	28551	32206	34839
65-74	37.76	13845	15059	14324	14001	15361	18973	22535
75+	22.22	5285	6086	7507	8474	9025	9252	9850
Total		**123771**	**132682**	**140219**	**146854**	**153932**	**160411**	**166228**

Nonfamily

Age Group	Headship Rates	1991	1996	2001	2006	2011	2016	2021
15-24	5.62	3541	3434	3545	3792	3994	3955	3743
25-34	11.07	8814	8487	7725	7399	7608	8145	8576
35-44	7.75	5272	5941	6419	6157	5634	5427	5585
45-54	7.76	3728	4524	5331	5983	6466	6225	5718
55-64	13.24	5806	5592	6038	7380	8750	9870	10677
65-74	25.36	9298	10114	9620	9403	10316	12742	15135
75+	37.38	8891	10238	12629	14255	15182	15565	16571
Total		**45350**	**48329**	**51307**	**54369**	**57950**	**61929**	**66005**
Regional Total		**169121**	**181012**	**191526**	**201223**	**211883**	**222340**	**232233**

* A Family is a husband and wife with or without children.
Source : Hamilton-Wentworth Planning And Development Department, 1992.

Table A-3

Projected Resident Labour Force by Age Group And Sex, Five Year Intervals, 1991-2021

Male	1991	1996	2001	2006	2011	2016	2021
15-19	8567	8739	9534	10153	10586	9895	9433
20-24	13839	13477	13620	14609	15580	16270	15292
25-34	37430	35963	32760	31815	32838	35135	37042
35-44	31630	35760	39126	37487	34359	33534	34639
45-54	22229	26457	30460	34306	37545	36105	33220
55-64	13660	13147	14188	17165	20017	22696	24866
65+	3215	3477	3577	3738	4046	4614	5262
Total	130570	137021	143265	149273	154970	158250	159753

Female	1991	1996	2001	2006	2011	2016	2021
15-19	8507	8389	9175	9718	10134	9480	9038
20-24	13129	12811	13034	14113	14968	15632	14703
25-34	31589	31531	30043	28371	29058	31131	32734
35-44	28135	34331	39556	37994	34704	32986	33827
45-54	17544	24092	32049	35855	38282	36900	33835
55-64	9061	10979	14545	17953	21620	24273	25941
65+	1590	1648	1676	1763	1903	2137	2408
Total	109556	123781	140079	145767	150669	152539	152485
Regional Total	240126	260802	283344	295040	305639	310789	312238

Participation Rates

	1991	1996	2001	2006	2011	2016	2021
Male	74.6	74.2	73.8	73.2	72.4	71.0	69.6
Female	58.3	62.6	67.5	66.9	65.8	64.1	62.3
Total	66.2	68.2	70.5	69.9	69.0	67.5	65.8

Source : Hamilton-Wentworth Planning and Development Department, 1992.

Table A-4

Projected Employed Labour Force by Age Groups and Sex, Five Year Intervals, 1991-2021

Hamilton-Wentworth

Male	1991	1996	2001	2006	2011	2016	2021
15-19	7453	7865	8867	9443	9845	9203	8773
20-24	12040	12129	12666	13586	14489	15131	14221
25-34	32564	32367	30467	29588	30539	32676	34449
35-44	27518	32184	36387	34863	31954	31187	32214
45-54	19340	23812	28328	31905	34917	33578	30895
55-64	11884	11832	13195	15963	18616	21108	23125
65+	2797	3129	3327	3476	3763	4291	4893
Total	113596	123318	133237	138824	144122	147173	148571

Female	1991	1996	2001	2006	2011	2016	2021
15-19	7401	7550	8533	9038	9425	8816	8405
20-24	11422	11530	12122	13125	13920	14538	13674
25-34	27482	28378	27940	26385	27024	28952	30443
35-44	24478	30898	36787	35335	32275	30677	31459
45-54	15264	21683	29806	33345	35602	34317	31466
55-64	7883	9881	13527	16696	20107	22574	24125
65+	1383	1483	1559	1639	1770	1988	2239
Total	95313	111403	130273	135563	140122	141861	141811
Regional Total	**208909**	**234721**	**263510**	**274388**	**284245**	**289033**	**290381**

Source : Hamilton-Wentworth Planning And Development Department, 1992.

Table A-5

Expected Distribution of Forecast Population and Households
Area Municipalities, 2001, 2011 and 2021

	1991			2001		
	Hhlds	**Size**	**Pop**	**Hhlds**	**Size**	**Pop**
Ancaster	6,880	3.196	21,990	9,260	3.078	28,500
Dundas	7,770	2.814	21,870	8,570	2.731	23,405
Flamborough	9,625	3.077	29,615	12,455	2.971	37,005
Glanbrook	3,080	3.158	9,726	4,050	2.932	11,875
Hamilton	125,525	2.537	318,500	136,065	2.461	334,855
Stoney Creek	16,245	3.076	49,970	21,125	2.936	62,425
Total	169,125	2.671	451,665	191,525	2.600	498,060

	2011			2021		
	Hhlds	**Size**	**Pop**	**Hhlds**	**Size**	**Pop**
Ancaster	12,215	2.921	35,680	15,190	2.828	42,955
Dundas	9,370	2.584	24,210	10,170	2.509	25,515
Flamborough	15,825	2.862	45,290	19,465	2.719	52,925
Glanbrook	5,190	2.715	14,090	6,320	2.528	15,975
Hamilton	142,665	2.376	338,970	149,025	2.2956	342,100
Stoney Creek	26,620	2.803	74,615	32,055	2.714	86,995
Total	211,885	2.515	532,860	232,225	2.439	566,465

City of Hamilton

	Upper City			Lower City		
	Hhlds	**Size**	**Pop**	**Hhlds**	**Size**	**Pop**
1991 (est)	46,425	2.822	131,000	79,100	2.370	187,500
2001	54,425	2.721	148,070	81,640	2.288	186,790
2011	58,025	2.625	152,310	84,665	2.205	186,685
2021	60,925	2.551	155,415	88,100	2.119	186,685

Source: Hamilton-Wentworth Planning and Development Department, 1992

APPENDIX B
Glossary of Terms

Birth Rate:	Number of births per thousand women.
Baby Boom : Generation	The people born between 1940 and 1960 who now make up a sigificant share of the population.
Baby Boom Echo:	The children born to the baby boom generation.
Cohort:	A single age/sex category, e.g. 15 year old males.
Fertility Rate:	The average number of children a woman will have in her lifetime.
Headship Rate:	The percentage of the population of a particular cohort who are considered household maintainers, where a household maintainer is the person, or one of the persons, in the household who pays rent, or the mortgage, etc. for the dwelling.
Household Size:	The number of persons per household.
Household:	A person or persons occupying one dwelling. A household may be made up of a single person, unrelated individuals, a family (husband/wife with or without children) or several families.
Labour Force:	All persons having a job or looking for paid work, usually calculated as the number of people between 15 and 66 available to work, i.e. age/sex cohorts multiplied by participation rates.
Life Expectancy:	The average length of life based on age specific mortality rates.
Mortality Rate:	The number of deaths per thousand.
Median Age:	The age at which half the population is older, and half younger.
Net Migration:	The difference between the number of people moving into an area and the number of people leaving an area.
Participation: Rate	The percentage of people who have a job or are looking for paid work.